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ECOLOGY OF CENTRAL ASIAN PASTORALISM

LAWRENCE KRADER

INTRODUCTION

THIS PAPER will deal with the relationships between nomadic pastoralism and the natural environment in the steppes of Central Asia during the last eight to ten centuries and, in addition, it will treat with the relationship between the pastoral economy and the social organization of the nomads. The pastoralists under discussion occupy the steppes between the Caspian Sea and the Great Hsingan range of western Manchuria. They are Turks and Mongols, together forming two of the wings of the Altaic linguistic stock.

The steppes are a region of aridity, interior drainage (none of its water courses reach the sea), continental climate. Mountain barriers, prevailing winds and distance from the sea block off rainfall, and much of its water is brought onto the steppe only by mountain run-offs in the season of spring thaws. Because of their interior drainage and distance from the sea, the steppes may also be referred to as Inland Asia.

Vegetation is sparse, accordingly. On the margins of the steppe there is a transitional zone which is competed for by neighboring agriculturists, e.g., along the Great Wall of China and in the Altai Mountain pastures. Elsewhere peoples on the margins of the steppe have given up pastoralism for agriculture or have undertaken a mixed herding and farming economy, such as the Uzbeks, the Kalmuks, and the Buryats.

We distinguish the western or Turkic steppes from the eastern or Mongol. The Turkic steppes are lowland steppes, mainly at sea level. The Mongol steppes are highlands, 1500 meters and above.

The pastoralists have accomplished their adaptation to a difficult and unpromising landscape with considerable success. In regions where farming, whether dry

or irrigated, has never been successfully maintained the pastoralists have achieved a level of population density, technology, and political integration which the hunting band could not achieve (the hunting economy is mentioned as the only realistic alternative to pastoralism on the steppes), levels surpassed only by industrial society, which is transforming life on the steppes.

Where farming and herding jointly comprise the subsistence base of a community, they generally take the form of transhumance. Under transhumance, the livestock not being used for food or work are driven out to the pastures seasonally by village herdsmen while the core of the village remains at home and tills the soil. This is a form of specialization of labor practiced throughout Eurasia in historic times: from Scandinavia to the British Isles, thence across the mountain massifs of the Pyrenees, Jura, Vosges, Alps, Tyrolian Alps, Balkans, Caucasus, Persian highlands, and so far as Tibet. The term transhumance comes from the Spanish *transhumancia* via the French. Its distribution in the Middle East is described in Coon's *Caravan*.[1]

Nomadic pastoralism, in contrast to mixed pastoralism and farming, established itself later. It did so by mastering the ecological problems of steppe life in an economy involving several species of animals, a spatially delimited pattern of movement, and tent existence. It is not attested as such prior to the second millenium BC. Because of the ecological factors involved nomadic pastoralism is a highly specialized way of life, and once given the domestication of animals, perhaps in the fifth millenium BC, took three to four millenia in the evolution of its characteristic form. By mastery of the steppe ecology is meant the nomadic round: seasonal depletion of resources and annual return, allowing for a period of replenishment.

The general features of nomadism throughout the steppe involve recognized group rights in pasturages and movements in a fixed seasonal round from winter camp to summer pasture and back to winter camp again. There are sometimes spring and fall pastures as well. Nomadism is not indiscriminate wandering; pastures and the routes from pasture to pasture are matters of rights which are defended. Although the steppe is thinly peopled, it is filled by nomadic occupants in all its parts.

We distinguish between flat-steppe nomadism and the mountain and upland nomadism of the Altai, Tienshan, and Pamir mountain systems. In the latter, the Kirgiz, the Dzungarian Kalmuks, the Altai Turks, and the Pamir mountain Tadjiks live in somewhat different conditions from the occupants of the Mongolian steppes to the east and of the steppes of Turkestan and of the Volga to the west.

Pastoralism generally consists of sheep, horse, and cattle raising, and second-

1 Coon, 1952, Chapter 13.

arily camel and goat. That is, the goat only supplements the sheep as the principal source of wool, milk, meat, and their further products; and the camel supplements the horse as a means of transport for nomadism and trade. Mare's milk *(kumys)* is imbibed everywhere on the steppe, but the sheep is nevertheless a more basic source of food than the horse. Cattle supply a source of food as well as a means of transport.

There are two animals of limited distribution, the yak and the donkey. The yak is a creature of Tibet and of the highland regions immediately adjacent to it: Sinkiang, Mongolia, the Pamirs. The donkey is a creature of southwestern Asia with a restricted representation in the adjacent parts of Russian Turkestan.

ECOLOGY

Agriculture is a conjunctive symbiotic pattern, for the vegetable life which the farmer grows is dependent on his plowing, seeding, fertilizing, and watering, just as the farmer is dependent on his harvest for his food.

Herding, too, involves a symbiosis. The livestock supply the food and the fuel (dung) of the herdsman, his clothing (wool, felts, hides and skins), his housing (tents of felt), means of transport, and his goods for trade. The herdsman, for his part, affords his herds protection against predatory beasts and men (who might slaughter rather than milk the stock); he digs wells, builds windbreaks against the winter blizzards, isolates (in some instances) the stock infected by epizoötics, and supplies obstetric intervention for the herds, including early post-natal care in feeding (primarily of lambs in finding the teats of the ewes through the wool). The herdsmen and the herds are thus mutually dependent, by which is meant symbiosis.

However, both men and herds are parasitic on the grass, which the herds consume without replenishment. The dung which might fertilize the grass is carefully collected as fuel by the herders. The consumption of the grass in an area is reason enough for the nomadic round. In addition, however, there is the critical supply of water. In general, it is the amount of water, the soil type, and the nature of the terrain which determines the amount and quality of the grass, and the temperature which controls the length of the growing season of the grass.

The water is needed for drinking as well as grass growing, and the trampling of a spring or water course may induce a decision to move the pasturage in the annual round, regardless of whether the grass has been used up. Nefed'ev, an early 19th century writer, has made this point with especial clarity regarding the Volga Kalmuks:

> . . In summer the most favorable localities are occupied, one, by the Maloderbet ulus (Kalmuk subdivision) in the Irgen country on the border between the Don and Saratov

[districts] where the mild climate, excellent pasture, and abundance of fresh water afford the greatest accommodation; and two, by the Khoshout ulus which, in its summer camps on the meadows of the Volga country, utilize by themselves alone the excellent pastures, and most important, the considerable forest lands. Other uluses, under poor grass conditions, on sandy-clay and salt steppes which grow grass and dry out in the early summer sun, suffer especially from lack of water, and the Kalmuks must constantly clean new springs or dig out old ones, all of which furnish whitish bitter-salt water; and not seldom do they turn to liquid dung. But there is so little of this water that it is daily baled out.[2]

These conditions are true generally in the steppe region, throughout Turkestan and Mongolia, for everywhere water is scarce and often brackish. The herds destroy the water holes, which need the succeeding winter's accumulation of frost and the spring thaw to be rehabilitated.

The system of steppe and desert in the conception of a great geographer, Richthofen,[3] may be compared with the conception of their environment of one of the steppe peoples, in this case the Khalkha Mongols. Richthofen differentiated four kinds of steppe. (1) Yellow-earth or loess steppe, the usual Central Asian steppe, comprising virtually all the depressions which are not surrounded by glaciers. This steppe may be covered in part by sand. The loess steppe is the most favorable for vegetation and given sufficient water creates the best pasture. Loess is a fine, loose, friable soil, wind-deposited, which cleaves vertically. (2) Sand-steppe or sand-desert of fine sand inimical to the support of vegetation. It is usually blown into long, parallel waves, covering the loess. (3) Gravel steppe, likewise of a desert character. Where the rainfall is sufficient, it may support a sparse vegetation, and hence a limited amount of grazing. Its expanse is far more restricted than the loess or sand steppe. (4) Stony or detritus steppe. To this category belong the small depressions between glaciated ranges. The vegetation in this steppe is similar to that of the loess steppe, though sparser.

The Khalkha Mongols distinguish eighteen different kinds of steppe:[4]

atar gadzar	flat, unbroken, undissected country
bartā	broken country
bórók	sand or gravel steppe
eltšim tala	desert steppe
tšól	steppe, prairie
tšólóm	desert (central and east Khalkha)
ěrem tala	steppe, wasteland

2 Nefed'ev, 1834, pp. 116-117.
3 Richthofen, 1877, vol. 1, pp. 16-17.
4 Kazakevich, 1934, s. vv.

gobi	warm locality with rubble, gravel or sand cover, thin vegetation, few springs and no water courses; also solonchak (alkali flat or salt steppe)
yildam tala	lush grassland, well-watered
širgigtē gadzar	
širig	grassy meadow
talla	steppe, plain
talmai gadzar	little prairie; steppe country
xaŋgai	cool locality with friable soil, lush grass, trees on hillsides, well-watered; literally "satiated desire."
xaxir gadzar	grassless, treeless place
xelbú gadzar	broken country
xòdò	grassy steppe, well-watered, but insufficient for agriculture
xòdògin gadzar	desert steppe (central and east Khalkha)

A number of marsh and solonchak landscapes are differentiated:

bordži	swamp, solonchak
tsaidam	idem.
namak	swamp
šawartai	mud, mire
šal	solonchak, hard and fissured when dry, without plant cover
šor	salt-marsh, solonchak
tatsa	swamp
xudžir	salt-marsh, solonchak, literally "salt"

Upland country is distinguished as:

dúl	level place on a slope (mountain meadow)
tsaram	mountain tundra, bare plateau

Dunes have several subdivisions:

elús	sands, dune country
erēn elús	dunes with plant cover, literally "vari-colored sands"
maŋxa	dune, sand dune

Of valleys there are:

gōm	wide, vaguely defined valley (western Gobi); more or less infertile steppe (western Mongolia)
dzawa	narrow valley

xolõi	wide valley
toxxom	hollow, dell

Kazakevich adds the following on the subject of Gobi:

The generally known term gobi is on the maps as "Gobi Desert or Shamo." Usually this term is given as the proper name of a sandy, infertile, absolutely waterless place, something in the nature of the Sahara, having precise boundaries. . . . By this term the Mongols understand not only the name of a definite geographic locality. Usually it is used to define a complex concept of known climatic, soil, hydrographic and vegetation conditions, comprising a peculiar type of locality. Thus, e.g., a Mongol might speak of the "Arabian Gobi" or "the Sahara Gobi" and understand "gobi" as a region with relatively warm climate, sand, gravel, or pebble surface, few wells, small springs and no rivers or streams. An expanse of solonchak might be given the same term. There is no necessary link between these "gobis."

A characteristic feature is the absence in the gobi of the marmot (*Arctomys bobac*).[5]

"The Mongols place the *xaŋgai* in direct contrast to the gobi, giving it the meaning of a region with cool climate, friable soil, with dense grass cover and trees on the mountainsides; it is a region with many streams, rivers, lakes." It is also a proper name of a mountain chain in Mongol, Khangai, and is likewise applied to other ranges.[6]

Shul'zhenko has written:

. . . The nomadic pastoral economy maintained in the Mongolian People's Republic and in other countries of Asia and Africa is characterized by a nomadic population using a vast expanse of mountain, semi-desert and desert territory which is unfavorable for agriculture, without basically improving it as a pasture for the animals; the highly valued herding products are thus gained by a small disbursement of labor and of the means of production.

He goes on to say that another characteristic is its variability in food supply for the livestock from season to season. The weight of the animals falls in winter. The characteristics of Mongol nomadic pastoralism are: year-round grazing; portable quarters for man and enclosures for animals; absence of a fixed economic center or significant storage of fodder for cattle in winter; simultaneous pasturing of stock in conjunction with each other.[7]

These considerations are part of a more general picture. Shul'zhenko writes that there is no improvement of the soil. This is true: man and beast are parasitic

5 *Idem*, p. 7.
6 *Idem*, p. 8.
7 Shul'zhenko, 1954, pp. 22-23.

on the grass. But there is also no improvement of the breeds of livestock; that is, selective breeding is not practiced by the pastoralist. Again, he writes that no feed is stored for the livestock in the winter. This is part of the concept that food storage in general for man or beast is not practiced; nor is storage (damming) of water for man, beast, and vegetation known. This basic pattern obtains for the steppe dwellers generally from western Manchuria to the Caspian.

Since man as herdsman does nothing to increase the available water or fodder supply or to increase herd products in food, clothing, and housing, the natural factors remain operative. The critical factor in the low steppe is the amount of water and its rate of evaporation. The critical factor in the high steppe is the short growing season. Both these factors limit the plant cover and hence the size and density of the herds and of the societies which subsist on them. In addition, the severity of winter cold and wind require sheltered winter camps.

The societies of the steppe vary in complexity as the size and density of their population, as well as their participation in the various institutional nets of Asia. The factors of size and density enable them to participate in the given religions (Buddhist, Islamic, Nestorian), politico-military (imperial), and commercial nets as institutionalized, i.e., stable, patterns.

HERDING PATTERNS

The herding ecology may be studied in terms of relationship of herdsmen and herds to the environment and these again as reflected in the internal composition of the herds, and in human and livestock densities.

1. *Relations of Herdsmen and Herds to the Environment.*

The high steppes east of the Altai-Pamir system are characterized by a cold, arid climate. Absolute amplitude of temperature reaches 90° C.[8] The lowest recorded temperature of Outer Mongolia is —57° C. The July mean at Ulan-Bator, the capital, in the center of the country, is 17-18°, with a range of 10° in the north to 25° in the southern Gobi. In January the monthly averages run —35° at 1300 m above sea level, —20° at 2,000 m, —15° at 2500 m. This last is the critical altitude, and above this level the monthly mean drops off sharply to the extremes noted above.[9]

Comparing the high steppes with the low, we observe a sharp gradation. Ulan-Bator and Irgiz, northwest Kazakhstan, are both at about 48° North Latitude. Ulan-Bator is 1300 m above sea level; Irgiz is at sea level, in the north Caspian

8 Murzaev, 1952, p. 192.
9 *Idem*, pp. 201, 203-206.

lowlands. The June, July, and August temperature means at Ulan-Bator are 14°, 18°, 15° C. The June, July, and August means at Irgiz are 23°, 26°, 24° C. Half the year and more is free of frost in the low steppe: 172 days at Kazalinsk, northern Kazakhstan, and 215 days at Bairam-Ali, southern Turkmenia. There are at least forty fewer days free of frost at Ulan-Bator than at Kazalinsk,[10] thus well under five months in Mongolia.

The most relevant effect to pastoralism of the frost factor is the reduction of the vegetation growing season, which is a problem especially grave in the high steppes of Mongolia. The average period in various parts of Mongolia in which the grass grows is 100-130 days.[11]

Wiens points out that there is a gradual increase in precipitation in Outer Mongolia from south to north. The extreme south has less than 100 mm of mean annual precipitation, gradually increasing to 300 mm in the extreme north.[12] The soil and vegetation maps appended to Murzaev's work on the physical geography show a corresponding increase in richness and favorability for human habitation.[13]

The western steppes, lying between the Altai Mountains and the Caspian reflect a similar picture. Desert-steppe and desert predominate in the south, giving place to chestnut soils of the grass steppe, to the north of which in turn are the chernozems or black earths of southern Siberia. The Kara-Kum presents a typical problem to the pastoralist who wishes to move onto the steppe. At the present time it consists of solonchaks (greyish to white soils, highly unproductive) and sands; the vegetation is almost solely psammophytic shrubs.[14] Its northern limit is marked by the Amu-Darya, where two stations, Turtkul and Nukus, each show annual precipitation totals of less than 100 mm. On its southern periphery, marked by the Kopet-Dagh mountains, two stations, at Kerki and at Ashkhabad, have readings of 160 to 230 mm. The latter are close to the mountains.[15] Nowhere is there so much as 25 cm of rainfall annually. The water factor involves not only the amount of precipitation but evaporation rate. The evaporation rate in the low steppes inhibits plant growth, and is the crucial problem in the western steppes, just as the frost factor is in the eastern. The rainfall comes in winter and supports a short-lived spring vegetation.

10 Suslov, 1947, p. 410; Semenov-Tian-Shanskii, 1913, pp. 181-184; Murzaev, 1952, pp. 202-203, 217.

11 Iunatov, 1954, p. 32.

12 Wiens, 1931, p. 350, fig. 2.

13 Murzaev, 1952, appended soil and vegetation maps; p. 419. Cf. also Iunatov, 1954, fig. 8, facing p. 40.

14 Suslov, 1947, appended soil and vegetation maps.

15 *Idem*, p. 411.

There is little change in basic herding composition between the low steppe and the high, save that the familiar cattle-sheep-goat-horse complex has added to it the yak and the yak-cow hybrid *(khainyk)* in the high steppe. The height of the yak in the various regions in which it is found is fairly constant, about 110 cm. However, trunk-length increases slightly in the north over the south and the size of the chest likewise.[16] This is true of all herd animals, in keeping with the general rule governing length to mass of mammals: the colder the climate, the greater the mass relative to length (Allen's and Bergman's rules).

Camels are uniformly distributed through the steppe where the aridity permits. Donkeys are present only on the southwestern perimeter; their occurrence in Central Asia is a factor of proximity to Afghanistan, Iran, and Southwestern Asia generally.

2. Internal Composition of the Herds.

In a high-steppe environment, according to Simukov's data, sheep are somewhat less adaptable than goats, for sheep founder in snow. In Outer Mongolia, sheep are more numerous than all other herding animals together. Nevertheless, goats increase in proportion to the total herd under less than favorable pastoral conditions. Sheep are most numerous, relatively, and goats least in the steppes of eastern Mongolia; goats increase in proportion and sheep decline under conditions of greater aridity; goats increase in altitude or in forest-steppe environment.[17] There are more goats than sheep in the southern Gobi.[18]

Shul'zhenko has the following picture[19]

	Sheep	*Goats*	*Cattle*	*Horses*	*Camels*
		(percentages)			
Eastern Steppe	58.6	14.0	11.7	12.8	2.9
Khangai Forest-Steppe	57.7	17.0	13.0	11.1	1.2
Gobi Desert-Steppe	51.1	27.6	4.5	9.2	7.6
Altai Mountain-Steppe	56.0	29.1	5.7	6.5	2.7
Outer Mongolia: Total	55.4	22.3	8.7	9.9	3.7

Simukov's conclusions are that cattle attain the highest proportion within the total herd in the forest steppe: 31 percent near the source of the Onon River in

16 Shul'zhenko, 1954, p. 151.
17 Simukov, 1931, pp. 57-75.
18 Shul'zhenko, 1954, p. 39.
19 *Ibid.*

north-central Mongolia. Cattle are in smallest proportions in arid environments. As such the position of cattle is the converse of that of the camels, which form 10 percent of total herds in the desert and steppe-desert regions, falling to less than 2 percent in the forest steppe.[20]

Horses, like sheep, are relatively most numerous in typical steppe conditions, that is, neither mountainous nor desert. Horses do not adapt well to hilly or mountainous terrain. Goats, of all the Mongol herds, adapt best to mountain and desert country, almost overtaking the sheep in the Altai and Gobi. Sheep and goats are mountain animals; cattle, horses, and camels are not. Horses have a slightly more uniform distribution than cattle, adapting better to mountain and desert terrain.

The relations between climate, geography, and herd composition are borne out when the herd ratios in Buryat country are analyzed. Buryatia is a forest-steppe region (mixed pine and deciduous forest), far better watered than Outer Mongolia. Suslov classifies the soils of Buryatia as podzols, grey podzolized steppe-forest soils, and scattered mountain tundra (east of Baikal and in the Sayan Mountains south of Irkutsk); on the Mongolian border there are small steppe-desert formations, as well as some grass steppe *(Argopyron repens)*.[21]

In the early 19th century in Buryatia (1813-1829) cattle formed 50 percent of the herds, sheep 23 percent, horses 21 percent, goats 4-7 percent. At this time, agriculture was introduced by the Russians, and even a few pigs.[22] In the period 1916-1930, cattle were 32-40 percent of the herds, sheep and goats 40-53 percent, horses 11-15 percent, and pigs 3-5 percent.[23] Cattle decreased in relative proportion in the course of the 19th century, as did horses. Sheep, goats, and pigs increased.

There remains a word to be said about yaks and the cow-yak hybrid, the *khainyk*. These are found in small percentages, primarily in the mountainous regions of Outer Mongolia, the Tienshans, and the Pamirs. In 1930 the yaks formed no more than 1.9 percent of the total Mongol herds and the *khainyk* 0.17 percent. They are, of course, most favorably adapted to cold of all the types of domesticated stock.[24]

The herding pattern of Sinkiang has little coverage in the literature. In 1877 a report on the district of Kuldja (I-ning) in western Sinkiang on the Ili River close to the Russian border, distinguished two populations, one fundamentally sedentary: Taranchi and Sibo; and one fundamentally nomadic: Kazakh and Kalmuk. The Taranchi are Turkic; the Sibo were a Manchu military colony estab-

20 Simukov, 1931, pp. 63-66.
21 Suslov, 1947, appended soil and vegetation maps.
22 Girchenko, 1927, p. 74.
23 *Zhizn' Buriatii*, 1931, pp. 72-73.
24 Shul'zhenko, 1954, pp. 26-27.

lished on the frontier. Of the half-million total stock in one part of the district the farmers owned 10 percent, the nomadic Kazakhs and Kalmuks 90 percent. The Manchu Sibo had a few pigs. The combined herds were basically composed of horses, cattle, sheep, goats, and camels, plus a few donkeys and mules. The following table shows the herd ratios in Kuldja in 1877 and those of all Sinkiang in 1933:

	Horses	*Cattle*	*Sheep*	*Goats*	*Camels*	*Donkeys and mules*	*Pigs*
			(percentages)				
Kuldja, 1877[25]	11	7	75	6	1	few	few
Sinkiang, 1933[26]	6	12	71	10	few	few	none

Sheep were the predominant herding animal in Kuldja in the 19th century and in all of Sinkiang in the 20th. Kuldja reflects the pastoralism of Kazakhstan, the chief herding region of Turkestan. Adjustments among the various herding animals other than sheep in the time period 1877-1933 are minor compared to the position of sheep-raising. There are a few yaks and *khainyks* in Sinkiang which in this respect corresponds to the herding pattern of the Altai-Tienshan-Pamir systems. The Kalmuks or western Mongols in Sinkiang are a numerically small people who live chiefly in the north, in so-called Dzungaria. Their herding pattern is closely related to western Outer Mongolia where climatic and geographic conditions are much the same as in Dzungaria.

To the west of the Altai-Tienshan-Pamir mountain systems lie the low steppes of Turkestan, comprising the country of the Kazakhs, Kara-Kalpaks, and Turkmen connected with the Dzungarian Gobi lowlands. Within the mountain complex itself are the Altai Turks, the Kirgiz, and the Tadjiks. The Uzbek country is basically farming and is physically and physiographically in between the Kazakh steppes and the Kirgiz-Tadjik highlands.

Ivanin collected materials for the period 1846-1852 on the Kazakhs of the Inner or Bukei Horde which occupied the steppes north of the Caspian, i.e., in northwestern Kazakhstan. Three of his series are given below, the first excerpted by him from a report of General Obruchev on the Bukei Horde as a whole in 1846; the second is Ivanin's own data on seventeen clans of the Bukei Horde for 1849-1850; the third is the series for the Caspian division of the Bukei Horde for 1852, the Caspian division partly overlapping with the seventeen clans.[27] In 1876

25 Pantusov, 1881, pp. 178-179.
26 *Eksportnye Resursy*, 1933, pp. 175-180.
27 Ivanin, 1864, pp. 11-40.

Finsch collected materials regarding the Kazakhs of northeastern Kazakhstan (Semipalatinsk).[28]

The Bukei Kazakhs in 1846 numbered about 150,000 tents. Their herds totalled 1,850,000 head. The seventeen clans in 1849-1850 numbered about 100,000 and owned some 1,670,000 head of stock. The Caspian division of the Bukei Horde in 1852 numbered about 40,000 people and had 340,000 head of stock. The Semipalatinsk Kazakhs had 19,000 population in 4,550 yurts. Their herds totalled 166,000 head. The internal proportions of the herds of the various north Kazakh groups between 1846 and 1876 are shown in the following table:

	Horses	*Cattle*	*Sheep*	*Goats*	*Sheep/ Goats*	*Camels*
			(percentages)			
Bukei, 1846	17	11	—	—	67	5
Bukei, 1849-50	13.7	9.5	65.4	7.8	—	3.5
Bukei, 1852	10	12	—	—	72	6
Semipalatinsk, 1876	31	11	—	—	58	under 1

The following table gives the herding composition in Kazakhstan, Kirgizia, Tadjikistan, Uzbekistan, and Turkmenia in the 1920s:[29]

	Horses	*Cattle*	*Sheep*	*Goats*	*Camels*	*Donkeys and mules*	*Pigs*
				(percentages)			
Kazakhstan	12	24.4	51	8.4	2.2	—	2
Kirgizia	11.4	17	55	13.6	1	negligible	1.8
Tadjikistan	3.5	22	42	22	1	3.5	—
Uzbekistan	9	26	44	17	1.8	6	negligible
Turkmenia	3.8	12.8	*	*	6.3	3.1	negligible

* Sheep and goats combined total 74%.

The pig is of Slavic provenience in western Turkestan today. In eastern Turkestan or Sinkiang it is of Chinese. Donkeys and mules are Middle Eastern animals; it will be seen that these are found in their small percentages in those territories bordering on Iran and Afghanistan, e.g., Turkmenia, Uzbekistan, and Tadjikistan; they are too few to enter into the statistics in Kazakhstan and Kirgizia. Iran

28 Finsch, 1879, p. 157.

29 Figures for Kazakhstan as of 1925; Voshchinin, 1929, p. 47. Kirgizia, Tadjikistan, Uzbekistan, and Turkmenia as of 1924: *Vsia Srednaia Aziia*, 1926, pp. 389-390, 582, 597, 654.

shows the following herding composition (1937): sheep 55 percent; goats 28 percent; cattle 11 percent; horses one percent; donkeys and mules five percent; camels negligible.[30] Afghanistan has an almost identical pattern: sheep 59 percent; goats 25 percent; cattle 11 percent; horses one percent; donkeys and mules four percent; camels negligible; and a "few elephants."[31] Afghanistan and eastern Iran have similar ecological conditions.

The range of sheep percentages of Outer Mongolia, regardless of ecological sub-area is 51.1-58.6 percent; the mean is 55.4 percent. Goats have a greater range, from 14 percent in the grassy steppes of eastern Mongolia to 27.6 and 29.1 percent in the desert-steppe and mountain steppe of the Gobi and Altai. The Chinese Turkestan pattern is quite different: sheep are above 70 percent of the total herds; goats are 10 percent and less.

In the low steppe, sheep have a different pattern again: in the exceedingly dry region of Kenimekh, on the Uzbek-Kazakh border, sheep are 75 percent of the total herds, as contrasted with 44 percent in all of Uzbekistan and 51 percent in all of Kazakhstan. Goats at Kenimekh are on the lower edge of the Mongolian range: 17 percent for all of Uzbekistan, 14 percent in Kenimekh. The Kenimekh region is 78 percent Kazakh and 17 percent Uzbek.[32]

Kirgizia as a whole has herding ratios comparable to those of Outer Mongolia: sheep 55 percent; goats 14.6 percent. However, in the high plateau of the Susamyr drainage, three communities studied had herds with sheep as 75 to 86 percent of the total; goats in this mountain Kirgiz pattern were two to seven percent.[33] The conclusion is that east of the Altai-Pamir, goats increase proportionately as the terrain becomes more mountainous or the climate drier. West of the Altai-Pamir, sheep increase proportionally in a drier climate (Kenimekh) and in a mountainous terrain (Susamyr).

It is clear from the above data that both in the high steppe and the low, horses and cattle adapt poorly to mountainous country and dry country; in respect to aridity the record of horses is somewhat better than that of cattle. Both horses and cattle are virtually non-existent in Kenimekh, a low steppe dry region; in the Altai and Gobi, and in the Susamyr plateau, all horses and cattle figures are less than 10 percent. In the Mongolian grassy steppe and forest steppe horses and cattle are all above 10 percent; in Uzbekistan exclusive of Kenimekh horses are 10 percent; cattle are close to 30 percent. In the Karakol-Naryn region, within which the Susamyr lies, horses are 10.6 percent and cattle 12.6 percent. There are no horses

30 *Strany*, 1944, p. 217.
31 Reiser, 1946, p. 49.
32 *Vsia Srednaia Aziia*, 1926, pp. 385-386, 389-390.
33 Karp and Suslov, 1927, pp. 64-65.

in the Gorno-Badakhshan region of the Pamirs. However, here cattle, including yaks, are 31 percent.[34] The high cattle figure for all of Turkestan as contrasted with all of Mongolia is in part a matter of agriculture: there is a close correlation between cattle and farming, and Mongolia has no agriculture. In part it is a matter of herding products. The livestock density is low in Turkestan, high in Mongolia (see below). By way of compensation, cattle, which are more productive of meat, milk, and hides, than sheep and goats, are in higher proportion in Turkestan.

The excellence of adaptation of the camel to a dry climate and the yak to a high, cold terrain needs no demonstration.

The selection by the environment supplies only a partial picture. Side by side with the influence of the environment are the purely cultural factors: internal for each people in terms of their own choice and option; external by diffusion and acculturation.

Clear-cut cases of environmental selection may be established in certain species: the camel and the yak; the increase in cattle percentages from southern Mongolia through central northern Mongolia to Buryatia, following the change from desert steppe to steppe to forest steppe, is a similar matter of environment. But the increase of goats proportionally in the hilly and mountainous regions of Mongolia is not matched in Kirgizia.

Goats were not especially prized among the Kazakhs of Kuldja, and in the Bukei Horde of the Kazakhs the goat figure is also low. Nowhere do the Kazakh data indicate a high percentage of goats, even though the natural conditions for their increase are present in Turkestan. Mountainous Kirgizia at best has a ratio of goats 16 percent below that of mountainous Mongolia (Altai). Cultural factors have intervened in increasing sheep relative to goats among the Turkic nomads (Kazakhs and Kirgiz) and goats relative to sheep among the Mongols.

The Kuldja data may be regarded as crucial. Here, in similar environments live two traditional herding peoples, both resident in the region for periods of a century and more. The herding ratios of the two peoples may be seen in the following:[35]

	Horses	*Cattle*	*Sheep*	*Goats*	*Camels*
	(percentages)				
Kazakhs	12	6	76	5	1
Kalmuks	12	15	54	18	1

34 *Vsia Srednisia Aziia*, 1926, pp. 389-390, 582, 654.
35 Pantusov, 1881, pp. 178-179.

The horse is important to both peoples. Cattle are not present in large percentages: Kuldja is in the Ili River valley which is not arid. This is shown also in the low camel figure. The sheep figure for the Kazakhs is 76 percent, a high percentage, almost never found among Mongols, of whom the Kalmuks are a group. The Kuldja Kalmuk percentage for sheep is 54, well within the Mongol range. On the other hand, the Kazakhs have a five percent goat figure, the Kalmuks 18 percent. The Kazakhs have a six percent cattle figure. As a rule, Kazakhs have a higher proportion of cattle than that.

The factor of cultural selectivity is seen in the proportions of sheep and goats.

The commercial factor is relevant here in Turkestan. The Turkic fat-tailed sheep, *kurdiuk*, is for food. The karakol sheep, however, is raised for market, for its wool commands a good price. The Mongols do not raise karakol sheep whose wool is so highly sought after and prized. On the other hand, in Afghanistan and Iran sheep are in proportions closer to the Mongol, despite the market for the Persian and Afghan karakol. However, the karakol sheep is as important in the Middle East as it is in Turkestan. The *kurdiuk* declines in proportion as the goat rises in Iran, etc.

The disappearance of the pig from Central Asia is not the clear-cut case of religious determination that might be supposed. The pig is not a species suitable to pastoral nomadism. It does not occur in the Mongolian herds where there exists no canon of Islam. The pig disappears from Central Asia because it is incompatible with the nomadic pastoralism, secondarily supplemented by the impact of Islam. Primarily it is nomadism with its mastery of the steppe ecology and movements of herds and herdsman which is the decisive factor in the disappearance of pigs from this part of the world.

3. *Population Densities of Pastoralists and Herds.*

Among the highest population densities recorded of Asiatic pastoralists is that of the Kalmuks who occupied the steppe northwest of the Caspian, between the mouth of the Volga and Stavropol in the North Caucasus. The rich vegetation of the chernozem steppe may be seen in the quotation from Nefed'ev above. Here in some 2400 square km of territory, about 16,800 Kalmuks lived in the 1890s, a mean density of seven per square km.[36] While it is true that farming had developed among the Kalmuks during the late 19th century, it had been taken up only by 17 percent in 1917.[37] The high density of the Kalmuk population in the region between Stavropol and the Caspian is chiefly due to optimum grazing conditions.

36 Dubrov, 1898, pp. 97-98.

37 *Bol'shaia Sovetskaia Entsiklopediia*, 1937, vol. 30, col. 752.

Another favorable region for herding is on the Susamyr plateau of central Kirgizia. Here an area of 321 square km supports a nomadic village of 844, a density of 2.6 per square km:[38] this is but one of many in the locality. Some herding communities come seasonally to the Susamyr from 300 km away.

The mean average densities of herding population in the low steppe are slightly below that of the Susamyr, between one and two per square km. In Kenimekh, a somewhat arid region by general standards of the low steppe, the mean population density is 0.9 per square km.[39]

In Mongolia the short period within which the grass may grow places a low limit on densities of men and herds. The mean average population density of Outer Mongolia is 0.5 per square km; the highest mean density is in the Arakhangai region, 1.4 per square km. (Above, the praise bestowed by the Mongols on the Khangai pasturage was cited.) The minimum mean is 0.2 per square km in the southern and eastern Gobi, and in the Altai. Arakhangai had a population in 1930 of 80,600 living in a region 57,400 square km in area. The Altai had a population of 39,900 in an area of 207,100 square km; the Gobi had a slightly higher density.[40]

The Buryat country had been transformed into a mixed farming-herding economy during the 19th century.[41] Nevertheless the ratios found here also are found in western Turkestan. In the Amu Darya province in the 1870s 16 percent of the land was used; 15.5 percent was pasture land, 0.5 percent farm land. The ratio of pasture land to farm land was 30:1. On the other hand, in the Syr Darya province, where the land also supported pastoralism primarily, pasture land was 41 percent, wasteland 59 percent; farm land was less than one percent of the whole; the ratio of pasture to farmland, 50:1.[42]

The combined population of the Amu Darya and Syr Darya provinces in the 1890s was 1,480,000, the total area 502,800 square km, and the population density 2.9 per square km.[43]

The combined population of the Trans-Caspian region south and west of the Aral Sea was much lower, the aridity much greater. Here the population was 382,000, the area 554,000 square km, and the mean density 0.7 per square km, among the lowest recorded in the low steppe. Increasing available water increases density of population on a south-north gradient: in the Turgai steppe, north of Aral it was one per square km, and in the Ural steppe to the west it was 1.7.[44]

38 Karp and Suslov, 1927, pp. 32, 85 ff.
39 *Vsia Sredniaia Aziia*, 1926, pp. 589-590.
40 *Sibirskaia Sovetskaia Entsiklopediia*, 1931, vol. 3, cols. 513-514.
41 *Zhizn' Buriatii*, 1931, no. 1-2, p. 8.
42 Keane, 1882, p. 441.
43 Schwarz, 1900, p. 37.
44 Schwarz, *loc. cit.*

The farming population densities are high in Central Asia, far higher than European. This is one of the classical lands of irrigated agriculture. The following table gives comparisons of average unit of land per household in Turkestan.[45]

Region	*Sedentary households*	*Nomadic households*	*Agricultural land* *	*Pastoral land* *	*Land per agricultural household* *	*Land per nomadic household* *
Semirechie	26,000	163,000	7,600	198,000	.29	1.2
Syr Darya	95,000	124,000	2,300	198,000	.02	1.6
Fergana	121,000	25,000	6,500	33,000	.05	1.3
Zerafshan	70,000	—	2,100	14,000	.03	—
Amu Darya	13,00	8,000	500	14,000	.04	1.8
	325,000	320,000	19,000	457,000	.06	1.4†

* All land in square kilometers.
† Exclusive of Zerafshan.

The land per household falls into three groups. The average per nomadic household is computed as 1.4 square km; the land for agricultural households in all provinces of Turkestan, except Semirechie, is 0.04 square km. In Semirechie it is 0.29 square km per agricultural household, that is, seven times that of the agricultural households of the rest of the region. Semirechie is settled largely by Slavic peasants whose agriculture requires more land per individual.

The average unit of land utilization of the Slavic peasant is midway between that of the Turkic pastoralist and the Turkic farmer. Thus, in Central Asia the "efficiency" of land utilization, i.e., the ability of the economy to support a given population density, is highest among the irrigating agriculturists; the dry farmers are in between, pastoralists lowest. The household unit was arbitrarily fixed at five individuals for the purpose of this computation, following Kostenko.

In the 1920s, the highly developed Uzbek irrigation economy was able to support 51.8 people per square km in the Khorezm district. Here the area was 5,600 square km, the population 290,000, of whom 97.7 percent were Uzbek. The famed Fergana valley had a density only slightly less: 48.3 per square km; the area was 31,000 square km and the population 1,490,000. The region was 72.2 percent Uzbek and 12.9 percent Tadjik, thus homogeneous in economy:[46] Uzbeks and Tadjiks are virtually indistinguishable in economic practices.

The mean herding density of selected areas in the high and low steppes may be seen in the table on the following page.

45 Kostenko, 1880, p. 9.
46 *Vsia Srednisia Aziia*, 1926, pp. 385-386.

Region	*Physiographic type*	*Area sq. km.*	*Population*	*Density per sq. km.*	*Gross total herds*	*Herd density per sq. km.*	*Ratio of gross herd size to pop.*	*Land cult. in percent*
Arakhangai (Mongol)[47]	Upland grass steppe	57,400	80,400	1.4	(1929) 3,000,000	52	36:1	0
South Gobi (Mongol)[47]	Semi-desert	155,400	39,400	0.25	(1929) 1,100,000	7	30:1	0
Altai (Mongol)[47]	Mountain steppe	207,100	39,900	0.2	(1929) 880,000	4	22:1	0
Outer Mongolia[47]	Steppe, various sub-regions	1,553,500	(Native population) 760,000	0.5	(1929) 22,000	14	30:1	Negligible[50]
Susamyr Dzhoudzhurek (Kirgiz)[48]	Upland grass steppe	321	844	2.6	(1929) 9,300	29	11:1	Under 1
Kenimekh (Kazakh)[49]	Semi-desert	32,600	28,000	0.9	(1924) 273,500	8	10:1	0
Gorno-Badakhshan (Kirgiz-Tadjik)[49]	High mountain pasture	53,700	25,000	0.4	(1924) 356,000	7	14:1	0
Southern Turkmenia (Turkmen)[49]	Oasis, desert	191,000	153,000	0.8	(1924) 552,600	3	4:1	Under 1
Khorezm (Uzbek)[49]	Oasis	5,600	290,000	52	(1924) 206,000	37	0.6:1	12.5
Fergana (Uzbek)[49]	River valley	30,800	1,490,000	48.3	(1924) 307,000	10	0.2:1	12

47 *Sibirskaia Sovetskaia Entsiklopediia*, 1929-1931, cols. 513-514.
48 Karp and Suslov, 1927, pp. 32, 64-65, 84-85.
49 *Vsia Srednaia Aziia*, 1926, pp. 385-390, 581-582.
50 Shul'zhenko, 1954, p. 55.

The selected areas in the above table have a more or less homogeneous population. The data are all from the 1920s. Prior to that time, the data are not complete in the categories listed; after that time the social and economic changes pose entirely different problems: sedentarization and collectivization in Turkestan, liquidation of lamaism in Mongolia and of the nobility in both Mongolia and Turkestan are among the principal changes.

In Mongolia the mean herd densities are high under favorable grass conditions, 52 per square km. In poor grazing lands, mountain or desert, the herd densities are as low as seven or even four animals per square km in Turkestan and mean herd densities are uniformly lower than they are in Mongolia. The best grazing lands, i.e., those on the Susamyr plateau, graze 29 head of stock per square km; while the desert-steppe of Turkestan grazes eight per square km in Kenimekh and three per square km in southern Turkmenia.

The mountain pastoralism of the Mongolian Altai and of the Pamirs are comparable in mean herd densities: four to seven per square km. But the Mongols have much more numerous herds than the Kirgiz or Tadjiks, as measured in ratios of livestock to man.

The Kuda Buryats in 1813 numbered 11,000-12,000. They occupied a territory of 6,570 square km: thus the mean density of 1.8 per square km. Their total herds numbered 40,000 horses, cattle, sheep, and goats. Cattle were about 50 percent of the total stock; sheep 23 percent; horses 21 percent; and goats four percent. Pigs were under one percent. The herd density was six per square km; the ratio of livestock to man was 3.5:1.[51]

Ivanin's northwestern Kazakh data show ratios of livestock to man of 16:1 in 1849-50 and 8:1 in 1852. Finsch's data for 1876 in northeastern Kazakhstan (Semipalatinsk) show 19,000 Kazakhs in possession of 166,000 head, a ratio of animals to man of 9:1.[52]

In the 1870s Semirechie in eastern Kazakhstan was predominantly nomadic. The nomadic population numbered about 800,800, the sedentary population about 130,000. The total livestock at this time was 7,800,000; the ratio of livestock to man was 8:1.[53]

The herd densities are lower in the dry steppe than in the high. The Turkic herdsmen are poorer as their steppe is poorer. Aridity is more of a limiting factor on the growing season of plants, hence on the densities of the herds, hence on the wealth of the herdsmen, than is altitude.

51 Girchenko, 1927, pp. 73-74.
52 Ivanin, 1864, pp. 11, 40; Finsch, 1879, p. 157.
53 Kostenko, 1880, pp. 9, 88.

The Mongolian steppe maintains a high ratio of stock to man; the Buryat, Pamir, and Turkestan pasturages maintain low ratios. The dominant stock of Buryat pastoralism was the bovine; the steppe in the vicinity of Baikal is better watered than in Mongolia, and the water is fresh. High herd ratios are not needed because the individual animals are better fed and produce more meat, milk, etc. And cattle are more productive than sheep in meat, milk, and hides, as we noted above.

The live Mongol cattle have an average weight of 378 kg. The live Kirgiz bull weighs 364 kg and the cow 231 kg.[54] The Mongolian sheep weighs 57.7 kg in eastern Mongolia. The sheep in the Susamyr plateau of Kirgizia weighs 40 kg.[55]

The Mongol herdsman on the average is richer both in quantity and quality than the Kirgiz who have access to some of the most valued pasture in Central Asia.

4. Losses of Stock

The sources of stock loss must be sought among three factors: epizoötics, predators (beast and man), and weather. Herds are subject to great and rapid changes in size. Above, data on herds of the Bukei Horde Kazakhs were given. In 1849-50, a ratio of 16:1 was derived for seventeen clans of the Horde; in 1852, a ratio of 8:1 for the Caspian division. The herds were increasing sharply in 1849. According to Ivanin, there had been terrible losses in the winters of 1845-1849 throughout the Bukei steppe. The stock loss was high; the loss of human life through starvation reached 25 percent.[56] The livestock recuperated more rapidly than man. The recovery by man so as to reduce the stock ratio occurred later.

The Kazakhs as a whole in the period 1917-1938 underwent even more radical changes in herd strength. Total Kazakh herds numbered 36,000,000 in 1917. By 1924, through war losses, revolution, and civil war, the herds had fallen to 19,400,000. By the spring of 1930 they had risen to 40,400,000. Three years later, in 1933, they numbered 5,000,000. This drop of 88 percent in three years was the result of a complex of factors revolving around sedentarization and collectivization. By 1938 the Kazakh herds almost doubled to 9,800,000.[57] After the 1930s the data are no longer comparable to the older series because of social changes.

Another example of oscillations in herd strength, sharp losses, and recuperations is drawn from Mongolia in the same period. In 1930 the herds increased by 72 percent over 1924, but dropped 8 percent between 1930 and 1935. However, in

54 Shul'zhenko, 1954, p. 135; Karp and Suslov, 1927, p. 83.
55 Lus, 1936, p. 82; Karp and Suslov, *loc. cit.*
56 Ivanin, 1864, pp. 11-12.
57 Voshchinin, 1929, p. 47; Podnek and Pavlov, 1930, pp. 27-28; Krader, ms 1954.

1940 the total herds were 90 percent over the base year 1924, 18 percent over 1930.[58]

The Volga Kalmuks had herds totalling 800,000 in 1827; 450,000 in 1836; 960,000 in 1844; and 810,000 in 1850. This is a drop of 44 percent in the nine-year period 1827-1836, an increase of 113 percent in the eight-year period 1836-1844.

Wolves cause some losses, but only in minimal percentages. Three years' surveys in Kuldja in the 1870s show an average of one percent loss to wolves: the average annual loss in the period 1874-1876 was 7,590 stock of all kinds, gross total stock in 1876 in Kuldja province was 750,000. Camels suffered least: less than 0.5 percent; horses and cattle under one percent; sheep and goats slightly over one percent.[59] The gravest threat to the life of the herds is social disorder. *Homo hominus lupus*, yes, but also *homo gregis lupus*, man is as a wolf to the herd.

Epizoötics and weather (drought in summer, winter blizzards of snow and wind, and frost) also take their toll of the herds. But the greatest threat to the life of the herds is mankind.

5. Herding Movements

The pattern of nomadic movements is relatively constant throughout the steppes. The Kalmuks in the north Caspian steppe had three pasturages per herding unit: winter camp and spring and summer pastures. They moved 15-20 km per day en route from winter to spring pasture; during the summer they moved more slowly, 10-15 km per day. This was the season of fattening herds for the winter. The fall was spent in transit to the winter camp; now they travelled quickly, before the onset of winter, 25-40 km per day. The lambs, foals, calves, kids were all grown; mother and young could move fast.[60]

In the 1920s Kazakh nomadic villages in northeastern Kazakhstan (southern Altai) had a parallel system of moves: one group left its winter camp in May and traveled 52 km in six days, including a two-day halt, thus averaging slightly over 10 km per day. They then moved 30 km in three weeks, about one km at a time. In July they moved to mountain pasture for one month and a half. This was the summer camp. They returned via the fall pastures to the winter camp in similar moves. The yearly round covered 72 km out and back, a total of 144 km. Other camps covered from 90 to 200 km in the annual round.

Another type of movement of the northeastern Kazakhs involved breaking

58 Shul'zhenko, 1954, p. 27.
59 Pantusov, 1881, pp. 103-104, 120-121.
60 Nefed'ev, 1834, p. 115.

winter camp around June 1; they moved 30 km to their first halt where they remained a week to ten days. They then travelled 25 km to the second camp where they stayed two to three weeks, then 30 km for a three to four day camping (Russians were here, therefore the shortened stay). Another 15 km move brought them to a fourth camp in their spring pasturage. By mid-July they had moved 100 km. The village spent one month at its summer pasturage, then returned to its winter camp.[61]

The Kalmuks and Kazakhs are primarily flat-steppe nomads. The Kirgiz of the Tienshan are of another type. They are mountain pastoralists. Their stay in the winter pasturage is far shorter than that of the Kalmuks or Kazakhs. On the flat steppe the winter camp remains together for eight or nine months. The mountain pastoralists remain from three to six months.[62] Then all types of pastoralists begin the spring move and the summer dispersal.

PASTORALISM AND SOCIAL ORGANIZATION

Natural factors, both inorganic and biological, intervene and are closely associated in the structural features and historical developments of the nomadic pastoral societies. It is clear that, despite the great herding technology and mastery of the steppe ecology, herdsmen are nevertheless totally dependent on the bounties of nature.

The pastoral nomads of Central Asia are strictly patrilineal and agnatic in organization. Membership in a group is based upon demonstrable or attributed descent in the male line from a common ancestor. These agnatic groups are corporative in character, that is, they survive the death of individual members. The groups are, in ascending order, the extended family, the kin-village, the lineage, the clan, the clan confederation, the principality (often the same as the clan-confederation), and the empire.

The corporative character of the groups is also exhibited in other attributes than perpetuity. They are residence or territorial units as well. The closer the kinship of two nomads, the closer are their camps and pasturages to each other.[63] From this, two conclusions follow. (1) Density of population and distribution are closely associated with social structure on the steppes of Central Asia. Within a given society there are found one or more focal points as centers of population concentration. This is the distributive factor, the presence or absence of which permits or denies the possibility of growth in size and complexity of these societies.

61 Rudenko, 1953, pp. 1-10.
62 Karp and Suslov, 1927, p. 77.
63 Cf. Krader, 1955.

(2) Precisely because man and herds are parasitic on the grass, density, distribution, and internal composition of the herds are closely associated with social structure.

The more frequent these density concentrations, the more complex and the more stable in complexity is the social organization; and the larger is the size of the society as a whole. The Khalkha Mongols have several such focal points, in the Arakhangai, near Ulan-Bator, around Kobdo, etc.

A high order of complexity is found among the Kazakhs, the Khalkha Mongols, and the Kalmuks. These peoples carried into the 20th century a division into nobility and commoners and, in the case of the Khalkhas and Kalmuks, an organized priesthood as well. These peoples all have relatively high densities of population and herds and high herd-to-man ratios. They also have urban centers of some antiquity, thus peaks of population concentration in cities.

Two major sub-groups of the Altai Turks are the Telenget and the Teleut, who numbered 3,415 and 1,898 respectively in 1926.[64] There is no indication of the area they occupy: they live beside rivers and lakes in the Altai region as pastoral nomads and hunters. They have no focal points of population concentration and no larger political agglomerations than the clan. They have also developed no permanent stratified nobility, nor a hierarchized priesthood. Thus there is a close association between natural conditions and social organization of these pastoralists, as mediated through the economy, with its given technical and economic base. The pastoralists are entirely dependent on the bounty of nature. They have developed no method of control, save the rudimentary care of the herds; they have none of the control techniques against famine (storage) and drought (dams) which farmers have.

Fortes and Evans-Pritchard[65] have propounded a relation between political centralization and population size, but they have divorced political centralization from considerations of density. While such is the case in the African societies they discuss, among the steppe pastoralists of Asia there is a three-fold relation between complexity of political organization (upon which centralization is predicated there), population size, and density. However, density is considered by me not as a gross index, but as a pattern of permanent concentration of population in focal points and dispersion in the interstices; seasonal concentration and dispersal is another matter. Centralization of political authority is closely related to population concentration in Central Asia, i.e., to net density.

Gross density is only a secondary consideration in political analysis. That is,

64 *Tsentral'noe Statisticheskoe Upravlenie SSSR . . . 1926*, 1929, vol. 17, pp. 10-11.
65 Fortes and Evans-Pritchard, 1940, pp. 7-8.

steppe herdsmen have a greater density as an order of magnitude than reindeer breeders (Tungus) or hunters (Ket) of the Siberian forest. If steppe herdsmen have densities of one to five per square km, hunters and reindeer breeders have less than one-tenth of that. Concomitantly, the political organization of the latter is neither complex nor centralized.

There is a relationship of herdsmen to the neighboring agricultural civilizations. This factor, the result of specialization by farmers and herdsmen, has been alluded to in this paper, but must be left for separate treatment by virtue of its complexity. Connected with it is the rise of cities (points of exchange between producers, points of rule and of tribute and tax collection), the rise of empires, and the spread of Buddhism and Islam.[66]

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66 Krader, 1953, *passim*.

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NOTES ON ESKIMO PATTERNS OF SUICIDE

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INTRODUCTION

WHILE SPENDING the summer of 1940 on St Lawrence Island, Alaska, one of the authors (AHL) obtained several descriptions of suicide[2] from Yuit (Siberian) Eskimos in the village of Gambell. These accounts emerged in the course of life histories which AHL was securing as part of a study in Eskimo personality. The individuals who mentioned the suicides were questioned in an effort to build as clear a picture as possible of the episodes, since they appeared relevant to adequate understanding of the autobiographies. On the other hand, because the field work was limited to personality study, no attempt was made to apply thoroughgoing ethnographic techniques as a means of obtaining a complete description of suicide as a pattern in the culture.

Recently, in order to see the relationship of the St Lawrence Island descriptions to a larger cultural context, one of the authors (CCH) surveyed the literature on Eskimo suicide. The results made it apparent that detailed accounts are relatively rare, and it has consequently seemed worthwhile to present the data from Gambell as a contribution toward general knowledge of the subject.

We shall begin with a brief summary of the main findings in the literature, followed by a report of the information gathered on St Lawrence Island. In conclusion, some comments will be offered on the functional aspects of suicide.

GENERAL CHARACTERISTICS OF ESKIMO SUICIDE

Among all Eskimo from Greenland to Alaska suicide was apparently in former times supported by fundamental cultural values. Rasmussen[3] records a succinct

1 Grateful appreciation is expressed to Drs Henry B. Collins, Margaret Lantis, and Robert Merton for critical review of the manuscript and for many exceedingly helpful suggestions. The remaining defects are, of course, the responsibility of the authors.

2 "Suicide" here will include both those forms in which an individual delivers the death blow against his person — as by shooting, jumping off a cliff, or starving — and those in which the principal individual procures the help of another person who is the executioner, as in voluntary hanging. This paper will not discuss related patterns such as infanticide, or the sanctioned killing of an anti-social member of the group. For a comparative treatment of these topics see E. A. Hoebel, *Law-ways of the Primitive Eskimos* (Journal of Criminal Law and Criminology, vol. 31, pp. 663-683, 1941).

3 Knud Rasmussen, *The Netsilik Eskimos* (Report, Fifth Thule Expedition, vol. 8, pp. 1-542, Copenhagen, 1931), p. 144.

expression of this point of view as uttered by a Netsilik Eskimo: "For our custom up here is that all old people who can do no more, and whom death will not take, help death to take them. And they do this not merely to be rid of a life that is no longer a pleasure, but also to relieve their nearest relations of the trouble they give them." An important reinforcement of this clearly expressed function was the common belief that the souls of people who had died by suicide went to the best of the afterworlds, along with those who had been murdered or who had met other forms of violent death.

The means of self destruction were various and included stabbing with a knife or spear, shooting, hanging, strangulation, jumping off a cliff, drowning, and starvation. Weyer has summarized most of the methods in his statement:

> On King William Island, old folks no longer able to provide for themselves generally hang themselves. Among the Iglulik Eskimos suicide by hanging or drowning is rather common. The act must be performed while the hut is empty and a lamp must be left burning so that one entering will see the body. Suicide is stated to be fairly common among the Koksoagmiut, south of Hudson Strait; remorse and disappointed love are the only causes, death being sought either by strangulation, by pitching one's self over a cliff, or by shooting. Also the Tahagmiut to the west not infrequently commit suicide, strangulation and shooting being the common methods. A native of Angmagasalik will throw himself into the sea, often prompted by the admonition from his relatives that he has nothing to live for. The Copper Eskimos, however, resort to suicide but rarely, according to Jenness. This observer remembers hearing of only one case and that was due not to any morbid weariness of life, but to terror of the revenge that might be expected for a crime that the man had committed.[4]

An important characteristic of most of these Eskimo patterns is that they were relatively non-ritualized. They *tended* to be individually-performed events, only occasionally supported by incipient social rules and proscriptions as to *how* the suicide should be accomplished (although there was considerable social agreement on the motives). Thus, in terms of the traditional behavior involved, most of the Eskimo patterns fall somewhere in the center of the range between extensively patterned suicides, such as the Japanese, and individualistic types, such as those in contemporary American society. A second generalization is that the usual motives prompting suicide were suffering (physical and mental) and being no longer a useful and productive member of the group. In this connection, Weyer recalls a vivid incident told to him in his own field work:

> A hunter living on the Diomede Islands related to the writer how he killed his own father, at the latter's request. The old Eskimo was failing, he could no longer contribute what he thought should be his share as a member of the group so he asked

4 Edward C. Weyer, *The Eskimos* (New Haven: Yale University Press, 1932), p. 248.

his son, then a lad about twelve years old, to sharpen the big hunting knife. Then he indicated the vulnerable spot over his heart, where his son should stab him. The boy plunged the knife deep, but the stroke failed to take effect. The old father suggested with dignity and resignation, "Try it a little higher, my son." The second stab was effective. . . .[5]

Illustrations of a similar nature can be found in most of the Eskimo literature, for the killing of aged or infirm parents by dutiful children was evidently a common occurrence.[6] Perhaps the epitome of this pattern with respect to the aged is expressed when Weyer says:

> The Eskimos of Baffin Island have great respect for the aged and treat them well. But when a woman becomes so old that she is a burden, she may calmly resign herself to death, allowing herself to walled into a snowhut and left to die. She thinks it is better; the tribe agrees.[7]

Suicides motivated by starvation were apparently not common except in areas subject to stringent local conditions (e.g., the Netsilik area).

There are, then, several points to be noted in the general Eskimo pattern of suicide: (1) it was relatively non-ritualized; (2) there was considerable variability in method; (3) the usual reasons for giving up one's life were sickness, suffering, and the feeling of uselessness (which may have been in large part a reflection of attitudes from the individual's social environment).

SUICIDE PATTERNS ON ST LAWRENCE ISLAND

The suicide episodes mentioned by our Yuit informants on St Lawrence Island differ from the general Eskimo practice by having more elaborate patterning and by involving a larger number of people in the event. In this way they apparently resemble the customs that have been described for the Chukchee on the neighboring mainland of Siberia.

Our information was gathered primarily from three male informants, with supplementary descriptions given by five other individuals.[8] The youngest of the principal informants was approximately 48 years old. Of the other two, one was

5 *Idem*, p. 138.

6 Cf., for instance, Knud Rasmussen, *Across Arctic America* (New York: G. P. Putnam's Sons, 1927); Kaj Birket-Smith, *The Caribou Eskimos* (Report, Fifth Thule Expedition, vol. 5, pp. 1-725, Copenhagen, 1929); Franz Boas, *The Central Eskimo* (Sixth Annual Report, Bureau of [American] Ethnology, pp. 399-669, Washington, 1888); William Thalbitzer, ed., *The Ammassalik Eskimo* (Meddelelser om Grønland, Vol. 39, Copenhagen, 1914), and others.

7 Weyer, *The Eskimos*, p. 138.

8 The authors wish to acknowledge their gratitude for the use of supplementary data on the suicide pattern which were gathered on St Lawrence Island by Dorothea C. Leighton and the late Frederick C. Cross, Jr.

63 (as nearly as can be determined), and the other was of unknown age but seemed to be the oldest of the three.

The data upon which our discussion of the suicide pattern is based can be classified roughly into fifteen fairly complete specific episodes, and at least twenty-nine fragments or mentions of individuals who died by suicide. Twelve of these episodes and twenty-one of the incomplete histories were reported as having been observed by the informant himself, though not all of them took place on St Lawrence Island, some being among people of the same culture across the water in Siberia. The remaining episodes and references (which consist of either brief aspects of the pattern, or listings of names) were not seen by the informant, but were events reported to him by other individuals. In addition there are two general descriptions of the pattern, one by an informant who said he had witnessed suicides and one by an informant who said he had not.

As nearly as can be determined from our field notes, the last suicide occurred in 1902. The death record compiled by Dr E. O. Campbell, a missionary on the island from 1900-1911, lists one man, age 45, who shot himself and left a wife, three children, and a brother as survivors. During the previous year an elderly woman had been hung by her sons. These two suicides were apparently the last successful attempts, for although another was tried sometime between 1900-1904 (the dating is extremely vague), it was stopped by Dr Campbell. A man suffering from "measles" decided he wanted to be hung, but Dr Campbell broke up the funeral party at the place of execution and took charge of the ailing man.

Three methods of ritual suicide were mentioned as having existed on St Lawrence: hanging, shooting with a rifle, and stabbing with spear or knife. Hanging was the most, and stabbing the least, common. The victim himself apparently had his choice.

It would be interesting to know the actual frequency of suicide, but our data do not permit even a crude estimate. As far as sex difference goes, it is noteworthy that in our total list of episodes, men predominate. There is also a sugestion that possibly the self-inflicted suicides were fewer than the cases in which the "victim" had himself killed by others. On the other hand, our data contain no indication of a connection between high status and self-inflicted death.

The general procedure for suicide was the same, no matter whether the blow was self-administered or given by someone else. Once having decided to do away with himself, the individual initiated the process by asking his relatives to kill him or at least help in the suicide. As a rule they would not consent at first, but rather tried to dissuade him from his intentions.[9] One of the St Lawrence informants said

9 This contrasts markedly with the practice reported among the Ammassalik: "When people fall seriously ill and there is no prospect of their recovery, they get tired of their sufferings, and

that among their ethnic counterparts at Indian Point (Siberia) the custom was for the prospective suicide to ask three times for someone to help him, the third request being one that could not be refused. There was no indication of limits to the number of requests at Gambell.

The requirement that the prospective suicide warn his relatives of his intentions is one of the most significant aspects of the pattern, for it is here that the *group* involvement begins to emerge. Unfortunately, however, there are as yet no adequate data on whether an individual could ever "legitimately" commit suicide by himself without first warning his relatives of his plans; or whether he always had to implicate the wider social group in his demise. Probably it was the latter, however, for an informant questioned on this point by CCH on a visit to the island in 1954 said that it simply never happened that a person would go off and kill himself all alone — "always lots of people around."

The reasons given by our informants to explain why the relatives tried to dissuade a person from suicide were that his family loved him and did not want him to die. One may conjecture that contributing factors may have been the existence of values strongly opposed to harming a family member and the necessity for the executioner to undergo a severe piacular ritual after the death.

If the prospective suicide continued to ask among his relatives for death they finally had to agree. He would then dress himself in his house as one already dead, i.e., with his clothing turned inside out. Presently a group of relatives would arrive and carry him seated on a reindeer skin to the "Destroying Place." This was the spot where in any regular funeral some of the deceased's property was broken. There were two such places on the edge of Gambell village. Sometimes, particularly if the man were sacrificing himself to save someone else, he would walk to his death. This was considered an especially praiseworthy act.

Before his death at the Destroying Place, the prospective suicide commonly addressed his relatives, giving them advice about life, and his reflections upon parting from this world. Informants describe this speech somewhat as follows: "Sometimes he say 'You big enough. You know what you can do. Older people must teach younger ones. And after me you won't need me any more. You can defend you self.' Because our custom is: anything when we couldn't think clear, we had to come to older people." And another excerpt: "He says 'My time is up, so I couldn't tell you anything more to what to do. So you be think you selves and you almost grown man now.' "

If a man were to be killed with a rifle by an assistant, the latter was usually

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then they often put an end to their lives by throwing themselves into the sea. They are often prompted to take this step by a word of admonition from their relatives, telling them that 'they have no longer anything to live for' " (Thalbitzer, *The Ammassalik Eskimo*, p. 74).

his wife, but in one case at least a female cousin performed the act. If hanging were the method chosen, one of the wooden supports of the old-style skin covered house was taken in the procession from the victim's home. A walrus skin rope with a loop was fastened through a hole in one end of the post which was placed at the suicide's back and held more or less vertically by relatives, the ground as a rule being so frozen that a socket for the post could not be dug. When the moment for death arrived, the suicide pulled his parka over his face, while others put the loop around his neck. Then either the victim was pulled upward by the rope and strangled in the process, or (and this was more common) he was lifted up on the reindeer skin by the assistants, the rope was drawn tight, and the skin lowered away. According to the informants it often took longer than half an hour for death to be accomplished by this method and during this time the victim's hands might be held to prevent his thrashing about.

There are no data for the details of the procedure if the suicide were stabbed by an assistant. However, in one case where the wound was self-administered it was reported that the man sat on a reindeer skin, fastened a knife to his leg, and bent forward, forcing the blade into his heart. If the person killed himself by shooting, he sat on a deerskin facing the village so the bullet would go in the opposite direction. He placed one end of a walrus rope around the trigger, the other about his toes, pointed the gun to his forehead, and pulled the trigger with his foot.

After death, the corpse was bundled up with walrus lashings in the same deerskin that had been used for the trip to the Destroying Place and it was taken to the mountain behind the village for disposal. On arrival at the final resting place the body was treated in the manner traditional for all corpses. The clothing and lashings which covered the body were cut. If the man had been shot, his relatives were not allowed to see the bullet hole and the body was placed face down on the earth. If he had been hung, the body was placed face upward. Regardless of the manner of death, some sort of stick was always taken to the Destroying Place and included in the deerskin bundle to make it rigid for easier carrying. If the death had been by hanging, the stick was placed along the front of the body which lay face upwards; if by shooting, it was laid along the back.

Once the decision and arrangements for the death had been made by an individual, retraction was very difficult. The consequences of such action were not specified by an informant, but among the neighboring Chukchee it was believed that all forms of bad fortune would ensue unless the retractor made a heavy sacrifice to the "Outer Being," an important deity in the Chukchee supernatural hierarchy.[10] It was, however, mentioned on St Lawrence Island that in at least two

10 Waldemar Bogoras, *The Chukchee* (Memoirs, American Museum of Natural History, vol. 11, 2 parts, New York, 1904-09), p. 566.

cases dogs were killed after a suicide vow had been retracted, presumably in the attempt to have them substitute for the human being.

The treatment accorded the relative who acted as executioner is particularly interesting as illustrating a case in which the necessary violation of a basic and deeply held value is followed by ritual activities which seem to constitute both symbolic punishment and exorcism of any evil that might arise from the killing. The prevailing attitude seems to have been, as one informant expressed it, "No one likes to kill anyone; people usually kill themselves when they want death." This informant himself put forward the suggestion that the treatment of the killer was some form of punishment.

The executioner was confined to his or her house for a period of twenty days. During this time he was not allowed to go outside for fresh air; he could not change his clothes; and he could not do any sort of work in the house. He always wore his clothes with the hair turned inward, and his head and eyebrows were shaved without water. A small net made of baleen was placed over his head or parka hood. He could not wash himself nor use his fingernails for scratching, though he was allowed to use a stick or comb for the latter purpose. For picking up meat he had to use a pointed knife rather than his fingers. After this initial twenty-day confinement, he was free to go outside, but still could not engage in constructive labor for another (unspecified) period of time.

The severity of this treatment can be judged by comparison with the usual period of ritual confinement for the family of a deceased person. This was five days if the deceased had been a male, ten days if a female. For each of these cases there was also an approximately equal period of somewhat less restricted activity during which the mourner was not confined to the house and the most stringent proscriptions were relinquished. Possibly the ritual confinement for the family of a deceased person was also considered a form of punishment, but there are no data on this point.

When death was by hanging, several relatives participated in holding the post, and in raising and lowering the deerskin. It was apparently felt that in such an operation no single individual was responsible for the death and as a result none had to undergo the severe treatment accorded a person who alone caused a death. It is likely that they nevertheless had to carry out some ritual limitations of activity, similar to those described above for ordinary mourning. Adequate information on this point is unfortunately lacking.

The commonest reason given for suicide was suffering due to physical sickness. A second cause was prolonged grief over the death of a loved one; another was pervasive despondency without apparent cause. The latter, as described by the informants, seemed to be very similar to the clinical depressions known

in our culture. A motive mentioned only once was the suffering caused by prolonged starvation.

The above motives are found in other Eskimo groups. On St Lawrence there was one additional reason not found in these groups nor in the Chukchee culture, as far as the evidence at hand indicates. This was the belief that a man, by giving his own life, could thereby save the life of an ill son or grandson. In the words of one informant, "My own parents, father and brother (sic), they been hang. I know my own father very well that time. We was both sick, myself and my father same time. Maybe my father was think 'If I die myself maybe he (son) get well.'" And a similar case at Indian Point was related: "Seems to me he wasn't very sick. He shot because he want to save son who was sick. Shot by own son (other son). . . . He was talking aloud before shot him. Say, 'I want to be shot because I want my son to live so I take his place to die.'"

Suicides based on this motive seem to have been at least as common as those due to sickness, although it is, of course, difficult to be sure of any such estimate. It is not known whether a man would sacrifice himself for his daughter or granddaughter, or whether a woman ever performed this sacrificial act. The specific rationale advanced for the action was that the offering of a life would appease the "devils" who were causing the illness of the son, and they would cease to torment him. This is indicated in the following: "(Q.) Why do people think that by taking their own lives this will save their son? (Informant) They believe that a person who shot himself puts all the sickness on him and when he dies there is none left behind for the family. He sacrifices himself to save the family."

Usually it was old men who committed suicide, but occasionally elderly women and people in the prime of life did so too. No clear-cut information on patterns of abandoning the aged (which, if practiced, might have increased the prevalence of suicides, especially among old women) is available, although the practice probably did exist. When it was a case of saving somebody else, it was often the able-bodied men in their most productive years who sacrificed themselves. Those who committed suicide were thought very brave and courageous; they, along with people who were murdered, were said to go to heaven — to a "place where they would be happier." It was particularly proper, according to one of the early ethnographers,[11] for what the St Lawrence Islanders termed an "athletic man" (i.e., the strong, able, aggressive individual who dominated his fellows) to kill himself rather than die a natural death. One reason for this may be, as Margaret Lantis has suggested,[12] that the prestige and high social evaluation accorded a good

11 Riley D. Moore, *Social Life of the Eskimo of St. Lawrence Island* (American Anthropologist, vol. 25, pp. 339-375, 1923).

12 Correspondence, 1954.

hunter in this culture was greatly enhanced by this ultimate act of killing — the killing of oneself. Thus, rather than suffer the social decline concomitant with waning physical powers, the athletic man and hunter often chose to destroy himself while still enjoying a large measure of prestige.

A brief comparison of the St Lawrence patterns with those of the Chukchee[13] may be interesting, since the two cultures share many other items in common and Chukchee suicide is often mentioned in the literature. Among the Chukchee, in contrast to the St Lawrence Islanders, self-administered suicide was a much less honored form of death than was dying at the hands of another. A person would kill himself only when he was young and could persuade no one else to deliver the blow. Death was inflicted by friends as well as relatives, whereas on St Lawrence only a family member could do the killing.

The reasons for suicide also show both differences and similarities: in Siberia (as on St Lawrence) suffering from sickness was a paramount motive, but in Siberia the motive of sacrifice to save someone else's life was apparently lacking. On the other hand, death accomplished to spite someone or to make him regret his actions toward the victim was quite prominent. This was not found in St Lawrence culture nor is it mentioned for other Eskimo groups.

In Siberia, as on St Lawrence, suicide was sometimes considered a legacy passed down from father to son, but it was usually thought of as more exemplary than obligatory. Among the Chukchee, and in common with most of the other Eskimo groups, people who died by suicide were believed to go to the best of the afterworlds. In both St Lawrence and Chukchee cultures, retraction of the death vow after it was accepted by the group was impossible without either serious misfortune or heavy sacrifice. In both places relatives tried to dissuade the person bent on death before group acceptance took place.

In contrast to the St Lawrence pattern, the Chukchee death usually occurred inside the house, there being no mention of a Destroying Place. The same three methods were known in the two areas: death by stabbing with either knife or spear, death by strangulation (in Siberia garrotting, rather than hanging) and death by shooting with the rifle. The most noticeable difference is that the person to be strangled lay with his head in his wife's lap, while two relatives pulled a rope from either side and his wife held his hands to prevent involuntary struggling. In Siberia the death was usually accomplished on the same day that the vow was uttered, and the person destined to die was feted with fine reindeer meat and shown extraordinary kindness. In St Lawrence, the death did not usually occur on the same day and there is no mention of special treatment before it.

13 Cf. Bogoras, *The Chukchee*, pp. 560-567.

SOME FUNCTIONAL ASPECTS OF SUICIDE ON ST LAWRENCE ISLAND

Although the main purpose of this paper is to make an ethnographic contribution, we wish to offer by way of conclusion some observations of a functional nature. The Eskimo values and practices in regard to suicide are apt to strike members of our society as exceedingly curious and to excite speculation as to how they could come into existence and be perpetuated. Some of the most interesting questions in this regard are at the level of individual psychology, since the act appears to be a contradiction to the fundamental self-preserving characteristics of the human organism. However, an adequate explanation, even if entirely theoretical, would involve a review of the concepts of unconscious motivation, learning theory and related fields, a task which extends far beyond the limits of this article.

At the level of group behavior, the problem has many interesting aspects. It may be recalled that Durkheim[14] examined several different forms of suicide, and one generalization he reached was that the form which he called "altruistic suicide" occurs "when social integration is too strong." It would seem that Eskimo suicide can be placed in this general class, although one can leave off, for scientific purposes, the value assumption implied in the phrase, "too strong."

Suicide is of interest, then, from the point of view of social behavior; and its functional implications may perhaps be more easily described in terms of such group phenomena than is possible in terms of intra-psychic processes. Along these lines Merton[15] offers a framework for functional analysis which can be applied without too much elaboration to our data and can at the same time yield some additional understanding. He defines the "function" of an item as the "observed consequences which make for the adaptation or adjustment of a given system." There are also "dysfunctions," which are "those observed consequences which lessen the adaptation or adjustment of the system." He draws an important distinction between the "manifest" and the "latent" functions or dysfunctions of any item: "Manifest functions are those objective consequences contributing to the adjustment or adaptation of the system which are intended and recognized by participants in the system; latent functions, correlatively being those which are neither intended nor recognized."[16] The specification of the system to which a function or dysfunction is imputed is crucial in Merton's scheme.

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14 Emile Durkheim, *Suicide* (Glencoe: Free Press, 1951).

15 Robert Merton, *Social Theory and Social Structure* (Glencoe: Free Press, 1949), pp. 50-54.

16 In his complete paradigm, he suggests several other aspects which should be discussed in a functional analysis—such as functional alternatives, concepts of dynamics and change, problems of validation of functional analysis, and concepts of mechanisms through which functions

When the principal individual (that is, the "victim") is considered as the system in question, it is evident, at the very least, that the suicide pattern serves to end physical, psychological, or social suffering. A latent function would be that death by suicide gives prestige and high valuation to the individual, especially if it is a sacrificial suicide, and possibly to his surviving family (data on this point are lacking). An element in the motivational complex behind the suicide, having to do with anxiety and defences against it, is the expectation of achieving a quick transformation into a happier existence. Although in a strict sense this cannot be a "function" of suicide (i.e., an "objective consequence"), a happy afterlife is defined by the system of belief as the consequence of killing oneself. We may also note the possibility of unconscious wishes for death, either innate or as the result of personality development and experience.

If the group (in this case, the individual's kinship group) is chosen as the unit for analysis, a manifest function of suicide is that the unit is relieved of the drain on its resources caused by an economically and socially disruptive member. This is achieved by an institutionalized pattern which not only disposes of him, but at the same time constantly imposes obstacles to the encouragement of sheer murder as a way to accomplish the same purpose. The emphasis seems always to be maintained on the voluntary decision of the individual. By this means it would appear that the potential group destructiveness of murder which can easily become contagious is not allowed to develop. Wanton destruction of human life is also further blocked by the numerous proscriptions in the suicide ritual itself, such as the requirement that the executioner always be a relative, and the long period of exculpation. By the former, the usual norms requiring retributive blood vengeance if someone is killed by a member of another family are nullified, and thus a potential chain of compensatory killings is precluded.

A latent function may consist in reinforcing the kinship bonds by implicating the kinship group in the arrangements for the killing and the funeral. These are not only reinforced by the sheer interaction involved, but more explicitly in the final speech of the suicide. If the death is a sacrifice, the basic sentiment of helping one's relatives and sharing with them is dramatically and vividly emphasized. The ritual "punishment" of an executioner and the mourning restraints on the surviving relatives also underline group solidarity and the seriousness of losing a member. In particular cases, a manifest dysfunction of the suicide pattern for the kinship group lies in the destruction of a member who was perhaps well-beloved and who could still contribute his wisdom and advice, even if infirm physically. And when the

are fulfilled, etc. — Our discussion, which is intended to be merely suggestive, will not attempt to encompass these other aspects.

suicide is sacrificial, an extremely important dysfunction lies in the destruction of a productive, useful member of the group who is in the prime of life.

If we now consider the larger society, the village, as the unit for functional analysis, it is possible to see a manifest function again in dissipating drains on its resources, and more broadly, in ridding the society of unhappy people. A function at the latent level is perhaps in the entertainment aspect: suicide provides a spectacle for other members of the social group, much as public executions once did in our culture. Of course a manifest dysfunction for the larger society as well as for the kinship group is found in the destruction of a member insofar as he contributes to the group. At the same time, however, the overall rate of suicides in the group is in effect institutionally controlled so that the security and well-being of the social group as a whole is never seriously endangered by the practice.

For the last unit which Merton suggests, the cultural system, several preliminary points can be set forth. A manifest function which is served by the ritual punishment aspect of the pattern is that the condemnation of killing an in-group member, especially a relative, is dramatized, and group cohesion is emphasized. Again, in the actual suicide pattern itself, traditional methods of social control are reinforced in the final departing speech of the suicide, where he reiterates the importance of listening to the elders and abiding by their advice and by the old ways. There are probably also significant manifest religious aspects but our data are too scant to permit much speculation on this point.

Latent functions of the sacrificial suicide would appear to be quite important: dramatizing and emphasizing belief in the powers of the spiritual world; reinforcing belief in the worth of the individual member of the society — for instance, that the beneficiary is worthy of the sacrifice; extremely vivid and powerful dramatization of the sentiments of mutual help and concern. No manifest dysfunctions to the cultural system (as distinct from the society) appear evident to us, but a latent dysfunction is engendered by retarding the development of other means of solving the problem, such as empirical medical techniques, and hence the enrichment of the cultural system. It is suggested that at the cultural as well as at the individual level, suicide avoids rather than solves the problems.

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HANUNÓO COLOR CATEGORIES[1]

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IN THE FOLLOWING brief analysis of a specific Philippine color system I shall attempt to show how various ethnographic field techniques may be combined profitably in the study of lexical sets relating to perceptual categorization.

Recently, I completed more than a year's field research on Hanunóo folkbotany.[2] In this type of work one soon becomes acutely aware of problems connected with understanding the local system of color categorization because plant determinations so often depend on chromatic differences in the appearance of flowers or vegetative structures — both in taxonomic botany and in popular systems of classification. It is no accident that one of the most detailed accounts of native color terminology in the Malayo-Polynesian area was written by a botanist.[3] I was, therefore, greatly concerned with Hanunóo color categories during the entire period of my ethnobotanical research. Before summarizing the specific results of my analysis of the Hanunóo material, however, I should like to draw attention to several general considerations.

1. Color, in a western technical sense, is not a universal concept and in many languages such as Hanunóo there is no unitary terminological equivalent. In our technical literature definitions state that color is the evaluation of the visual sense of that quality of light (reflected or transmitted by some substance) which is basically determined by its spectral composition. The spectrum is the range of visible color in light measured in wave lengths (400 [deep red] to 700 [blue-violet] millimicrons).[4] The total color sphere — holding any set of external and surface conditions constant — includes two other dimensions, in addition to that of spectral position or hue. One is saturation or intensity (chroma), the other brightness or brilliance (value). These three perceptual dimensions are usually combined into a coördinate system as a cylindrical continuum known as the color solid. Saturation diminishes toward the central axis which forms the achromatic core of neutral grays from the white at the end of greatest brightness to black at the opposite extremity. Hue varies with circumferential position. Although technically speaking *black* is

1 Field work among the Hanunóo on Mindoro Island (1952-1954) was supported by grants from the Social Science Research Council, the Ford Foundation, and the Guggenheim Foundation.

2 Conklin, 1954a, 1954b.

3 Bartlett, 1929.

4 Osgood, 1953, p. 137.

the absence of any "color," *white*, the presence of all visible color wave lengths, and neutral *grays* lack spectral distinction, these achromatic positions within the color solid are often included with spectrally-defined positions in the categories distinguished in popular color systems.

2. Under laboratory conditions, color *discrimination* is probably the same for all human populations, irrespective of language; but the manner in which different languages classify the millions[5] of "colors" which every normal individual can discriminate *differ*. Many stimuli are classified as equivalent, as extensive, cognitive — or perceptual — screening takes place.[6] Requirements of specification may differ considerably from one culturally-defined situation to another. The largest collection[7] of English color names runs to over 3,000 entries, yet only eight of these occur very commonly.[8] Recent testing by Lenneberg and others[9] demonstrates a high correlation in English and in Zuñi between ready color vocabulary and *ease in recognition of colors*. Although this is only a beginning it does show how the structure of a lexical set may affect color perception. It may also be possible to determine certain nonlinguistic correlates for color terminology. Color terms are a part of the vocabulary of particular languages and only the intracultural analysis of such lexical sets and their correlates can provide the key to their understanding and range of applicability. The study of isolated and assumed translations in other languages can lead only to confusion.[10]

In the field I began to investigate Hanunóo color classification in a number of ways, including the eliciting of linguistic responses from a large number of informants to painted cards, dyed fabrics, other previously prepared materials,[11] and the recording of visual-quality attributes taken from descriptions of specific items of the natural and artificial surroundings. This resulted in the collection of a profusion of attributive words of the nonformal — and therefore in a sense "color" — type. There were at first many inconsistencies and a high degree of overlap for which the controls used did not seem to account. However, as the work with plant specimens and minute floristic differentiation progressed, I noted that in *contrastive* situations this initial confusion and incongruity of informants' responses did not usually occur. In such situations, where the "nonformal (i.e. not

5 Estimates range from 7,500,000 to more than 10,000,000 (Optical Society of America, 1953; Evans, 1948, p. 230).
6 Lounsbury, 1953.
7 Maerz and Paul, 1930.
8 Thorndike and Lorge, 1944.
9 Lenneberg, 1953, pp. 468-471; Lenneberg and Roberts, 1954; Brown and Lenneberg, 1954.
10 Lenneberg, 1953, pp. 464-466; Hjelmslev, 1953, p. 33.
11 Cf. Ray, 1952, 1953.

spatially organized) visible quality"[12] of one substance (plant part, dyed thread, or color card) was to be related to and contrasted with that of another, both of which were either at hand or well known, terminological agreement was reached with relative ease. Such a defined situation seemed to provide the frame necessary for establishing a known level of specification. Where needed, a greater degree of specification (often employing different root morphemes) could be and was made. Otherwise, such finer distinctions were ignored. This hint of terminologically significant levels led to a reëxamination of all color data and the following analysis emerged.

Color distinctions in Hanunóo are made at two levels of contrast. The first, higher, more general level consists of an all-inclusive, coördinate, four-way classification which lies at the core of the color system. The four categories are mutually exclusive in contrastive contexts, but may overlap slightly in absolute (i.e., spectrally, or in other measurable) terms. The second level, including several sublevels, consists of hundreds of specific color categories, many of which overlap and interdigitate. Terminologically, there is "unanimous agreement"[13] on the designations for the four Level I categories, but considerable lack of unanimity — with a few explainable exceptions — in the use of terms at Level II.

The four Level I terms are:

1. *(ma)bĭru*[14] "relative darkness (of shade of color); blackness" (black)
2. *(ma)lagtiʔ* "relative lightness (or tint of color); whiteness" (white)
3. *(ma)raraʔ* "relative presence of red; redness" (red)
4. *(ma)latuy* "relative presence of light greenness; greenness" (green).

The three-dimensional color solid is divided by this Level I categorization into four unequal parts; the largest is *mabĭru*, the smallest *malatuy*. While boundaries separating these categories cannot be set in absolute terms, the focal points (differing slightly in size, themselves) within the four sections, can be limited more or less to black, white, orange-red, and leaf-green respectively. In general terms,

12 The lack of a term similar in semantic range to our word "color" makes abstract interrogation in Hanunóo about such matters somewhat complicated. Except for leading questions (naming some visual-quality attribute as a possibility), only circumlocutions such as *kabitey tĭda nu pagbantāyun?* "How is it to look at?" are possible. If this results in description of spatial organization or form, the inquiry may be narrowed by the specification *bukun kay ʔanyuʔ* "not its shape (or form)."

13 Lenneberg, 1953, p. 469.

14 These forms occur as attributes with the prefix *ma-* "exhibiting, having," as indicated above in parentheses, or as free words (abstracts).

mabĭru includes the range usually covered in English by black, violet, indigo, blue, dark green, dark gray, and deep shades of other colors and mixtures; *malagti?*, white and very light tints of other colors and mixtures; *marara?*, maroon, red, orange, yellow, and mixtures in which these qualities are seen to predominate; *malatuy*, light green, and mixtures of green, yellow, and light brown. All color terms can be reduced to one of these four but none of the four is reducible. This does not mean that other color terms are synonyms, but that they designate color categories of greater specification within four recognized color realms.

The basis of this Level I classification appears to have certain correlates beyond what is usually considered the range of chromatic differentiation, and which are associated with nonlinguistic phenomena in the external environment. First, there is the opposition between light and dark, obvious in the contrasted ranges of meaning of *lagti?* and *bĭru*. Second, there is an opposition between dryness or desiccation and wetness or freshness (succulence) in visible components of the natural environment which are reflected in the terms *rara?* and *latuy* respectively. This distinction is of particular significance in terms of plant life. Almost all living plant types possess some fresh, succulent, and often "greenish" parts. To eat any kind of raw, uncooked food, particularly fresh fruits or vegetables, is known as *pag-laty-un* (< *latuy*). A shiny, wet, *brown*-colored section of newly-cut bamboo is *malatuy* (not *marara?*). Dried-out or matured plant material such as certain kinds of yellowed bamboo or hardened kernels of mature or parched corn are *marara?*. To become desiccated, to lose all moisture, is known as *mamara?* (< *para?* "desiccation"; and parenthetically, I might add that there are morphological and historical reasons — aside from Hanunóo folk etymologizing — to believe that at least the final syllables of these two forms are derived from a common root). A third opposition, dividing the two already suggested, is that of deep, unfading, indelible, and hence often more desired material as against pale, weak, faded, bleached, or "colorless" substance, a distinction contrasting *mabĭru* and *marara?* with *malagti?* and *malatuy*. This opposition holds for manufactured items and trade goods as well as for some natural products (e.g., red and white trade beads, red being more valuable by Hanunóo standards; indigo-dyed cotton sarongs, the most prized being those dyed most often and hence of the deepest indigo color — sometimes obscuring completely the designs formed originally by *white* warp yarns; etc.). Within each of these Level I categories, increased esthetic value attaches as the focal points mentioned above are approached. There is only one exception: the color which is most tangibly visible in their jungle surroundings, the green (even the focal point near light- or yellow-green) of the natural vegetation, is *not* valued decoratively. Green beads, for example, are "unattractive," worthless. Clothing

and ornament are valued in proportion to the sharpness of contrast between, and the intensity (lack of mixture, deep quality) of "black," "red," and "white."

Level II terminology is normally employed only when greater specification than is possible at Level I is required, or when the name of an object referred to happens also to be a "color" term (e.g., *bulāwan* "gold; golden [color]"). Level II terms are of two kinds: relatively specific color words like *(ma)dapug* "gray" (< *dapug* "hearth; ashes"), *(ma)ʔarum* "violet," *(ma)dilaw* "yellow" (< *dilaw* "tumeric"); and constructions, based on such specific terms — or on Level I names — but involving further derivations, such as *mabirubiru* "somewhat *mabīru*" (more specific than *mabīru* alone only in that a color which is *not* a solid, deep, black is implied, i.e., a color classed within the *mabīru* category at Level I, but not at or near the focal point), *mabiiru (gid)* "very *mabīru*" (here something close to the focal center of jet black is designated), and *madilawdilaw* "weak yellow." Much attention is paid to the texture of the surface referred to, the resulting degree and type of reflection (iridescent, sparkling, dull), and to admixture of other nonformal qualities. Frequently these noncolorimetric aspects are considered of primary importance, the more spectrally-definable qualities serving only as secondary attributes. In either case polymorphemic descriptions are common.

At Level II there is a noticeable difference in the ready color vocabulary of men as compared to women. The former excel (in the degree of specification to which they carry such classification terminologically) in the ranges of "reds" and "grays" (animals, hair, feather, etc.); the latter, in "blues" (shades of indigo-dyed fabrics). No discernible similar difference holds for the "greens" or "whites."

In short, we have seen that the apparent complexity of the Hanunóo color system can be reduced at the most generalized level to four basic terms which are associated with lightness, darkness, wetness, and dryness. This intracultural analysis demonstrates that what appears to be color "confusion" at first may result from an inadequate knowledge of the internal structure of a color system and from a failure to distinguish sharply between sensory reception on the one hand and perceptual categorization on the other.

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VOCABULARY LEVELS: ZUÑI SACRED AND SLANG USAGE[1]

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NATIVE MEMBERS of English-speaking communities are sensitively aware that certain words and expressions in their language carry overtones of high or low status. Synonyms are often differentiated by such distinctions in ranking. *To desire* and *to want* have much the same denotative meaning, but one is on a relatively high and dignified level in contrast to the neutral tone of the other; *isn't* fulfills on a colloquially neutral plane the same referential function as the low-class *ain't*.

Although the phenomena of vocabulary levels are not well understood, it is clear that they cannot be treated purely in terms of linguistic form or derivation. Some high-toned English words are morphologically complex, but others are not. Slang expressions may be either monosyllabic or elaborate in form and in metaphorical circumlocution. Certain English words derived from Latin or French have acquired dignity, but others are part of our everyday vocabulary *(suit, dress)*, and still others are substandard *(a dame, a joint)*. Similarly, forms of Anglo-Saxon derivation range from the archaic poetical and biblical words to the vulgar four-letter words.

Interest in such stylistic features of vocabulary has been largely confined to lexicographers and to the literary specialists of our society, who have recognized that these features are the reflections of cultural norms. But it has also been assumed that stylistic phenomena of any kind are the product of literary refinement, particularly as developed in the traditions and standards of belletristic writing. Yet, non-literate societies without a specialized tradition of *belles lettres* have their high-valued words and phrases, which occur in myths or other sacred discourse, oratorical language, and the verbal forms of etiquette.[2]

1 Grateful acknowledgment is made to the Wenner-Gren Foundation for Anthropological Research, which provided a grant to aid my study of Zuñi language and culture.

2 The literature on sacred language is as vast as it is fragmentary, but see especially Ruth L. Bunzel, *Zuñi Ritual Poetry* (Forty-Seventh Annual Report, Bureau of American Ethnology, 1929-1930, pp. 611-835, 1932), pp. 617-620, and Leslie A. White, *A Ceremonial Vocabulary Among the Pueblos* (International Journal of American Linguistics, vol. 10, pp. 161-167, 1944). Oratorical style is discussed in Franz Boas, *The Social Organization and Secret Societies of the Kwakiutl* (Report, United States National Museum for 1895, pp. 311-738, 1897), p. 346. Some of the Aztec huehuetlatolli, a *genre* of oral narrative illustrating the forms of politeness to be used in appropriate situations, are published with Spanish translations in Angel Ma. Garibay K., *Huehuetlatolli: Documento A* (Sacramento, California: La Casa Editorial de Tlaloc, 1943). For

Although much has been written about taboo words, information is sparse on the occurrence in primitive groups of the lower levels of speech, such as substandard or slang usage.[3] In our own culture substandard language is usually defined as the usage of the low occupational, socio-economic, or educational classes: slang is "below the standard of cultivated speech . . . the special vocabulary of thieves, vagabonds, etc." or "language consisting either of new words or phrases, often of the vagrant or illiterate classes, or of ordinary words or phrases in arbitrary senses, and having a conventional but vulgar or inelegant use."[4] If graded levels of usage, both high and low, occur in societies without a specialized tradition of literary cultivation and without a class stratification, then these stylistic phenomena must rest upon a broader cultural base than would appear from the evidence in our own culture. It is the purpose of this paper to describe the characteristics of Zuñi sacred and slang usage, as evidence of vocabulary levels in a non-literate society.

Zuñi sacred terms are used in prayers, myths, songs, and traditional sayings. They also occur in conversations within the kiva, where special proprieties must be observed in language as in other forms of behavior.

As one aspect of their wisdom, old people are reputed to have the most thorough knowledge of sacred language. The younger informants with whom I worked were consistently modest about their ability to explain religious terms; they frequently did not know the narrative details or the names of personages in the myths to which the terms alluded. Whether young or old, however, Zuñi adults can unhesitatingly identify particular words and phrases as belonging to the sacred, in contrast to the everyday, vocabulary. And even young Zuñis understand the denotative meaning of most sacred terms, though they may be ignorant of their allusions and implications.

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verbal etiquette in the use of greetings and titles, see Jane Goodner Nellis, *Sierra Zapotec Forms of Address* (International Journal of American Linguistics, vol. 13, pp. 231-232, 1947) and Richard S. Pittman, *Nahuatl Honorifics* (International Journal of American Linguistics, vol. 14, pp. 236-239, 1948).

3 Most of the sources dealing with substandard usage limit themselves to specific types of verbal conventions, such as puns and nicknames. For a general treatment of verbal humor in one non-literate society, see W. W. Hill, *Navaho Humor* (General Series in Anthropology, no. 9, 1943), pp. 16-20. The linguistic devices employed in another society to characterize the physical or psychological peculiarities of individuals are described in Edward Sapir, *Abnormal Types of Speech in Nootka* (Canada Department of Mines, Geological Survey, Memoir 62, Anthropological Series, no. 5, 1915; reprinted in David G. Mandelbaum, ed., *Selected Writings of Edward Sapir*, Berkeley, 1949, pp. 179-196).

4 These definitions are, respectively, from *The American College Dictionary* and *Webster's Collegiate Dictionary*, 3rd ed.

Semantically, the forms identified as sacred are characterized by specialization of meaning when used in religious contexts. In everyday usage, for example, the stem pinna- means "to blow (of the wind)";[5] in prayers the singular noun form pinnanne refers, not to "wind," but to "life, breath."

Accompanying this semantic specialization is the feature of lexical distinctiveness: sacred terms are substitutions for everyday terms with similar denotative references. Insofar as its denotative meaning is concerned, pinnanne in the sacred meaning of "life, breath" replaces the neutral forms of ho??i-, "to be alive," and yanhaku-, "to breathe." Similarly, the ordinary word for "frogs" is takka; in sacred songs "frogs" are woliye tinan k?ayapa, literally "several-are-in-a-shallow-container (such as a dish, puddle, lake) they-sitting they-are-in-liquid." Lest the apparently elaborate circumlocution in this example be misinterpreted as a mark of poetic style, it should be pointed out that phrasal lexemes of this type are common throughout Zuñi vocabulary: "gila monster" is čittol ?asipa, "rattlesnake it-has-hands"; a man's nickname is ?a·na tenna ponławe, "going-along almost-disappeared he-moves-rapidly-with-head-down."

Most sacred terms are merely the conventional equivalents of such truly neutral words as takka, "frogs." There is no unfavorable connotation attached to takka which would make it unacceptable in sacred contexts. Only the particular histories of word usage could explain why some everyday animal names, for example, have developed sacred substitutes while others have been accepted without substitution in religious discourse. But certain everyday words, it is true, carry connotations which would be inappropriate in religious situations, and substitute terms are therefore essential. In daily speech nowe, "beans," k?ola, "chile," or pola, "cottonwood tree," may be used in an extended meaning for uncomplimentary reference to "Spanish-Americans"; a similar reference to "Spanish-Americans" is made by such compounds as nopolo·wa, composed of no-, the stem for "bean," and -polo·wa, a form of the stem for "cottonwood tree," or cipolo·wa, containing ci-, the stem for

5 The vowel symbols used in transcribing Zuñi represent sounds much like the Spanish or Italian vowels. Zuñi vowels, however, may be phonemically short or long, length being indicated by a raised dot after the vowel. P, t, and the glottal stop (symbolized by the dotless question mark) are always unaspirated and voiceless, the remaining stops and affricates being aspirated before vowels and unreleased before consonants; furthermore, k is a palatalized velar, phonetically ky, before a, e, i or before a glottal stop followed by these vowels. Zuñi c represents phonetic ts, the c with a superscript inverted caret is similar to the initial consonant of *church*, the barred l is a lateral spirant, and the remaining consonant symbols have approximately their English values. Stress, which is not marked, occurs on the first syllable of the Zuñi word. A more detailed description of the Zuñi system of sounds occurs in my "A Practical Zuni Orthography," pp. 163-170 of Watson Smith and John M. Roberts, *Zuñi Law: a Field of Values* (Papers, Peabody Museum of American Archaeology and Ethnology, Harvard University, vol. 43, no. 1, 1954).

"body hair." Such words, informants explain, are mildly insulting and too undignified to be proper in kiva language. Likewise, obviously borrowed words, such as melika, "Anglo-American," cannot be used in the kiva. This prohibition against loan words is obviously not to be equated with the tradition of linguistic purism, whereby organizations in many of the modern national states legislate against foreignisms that threaten to adulterate the native language. It stems, rather, from the general Zuñi injunction against bringing unregulated innovations into ceremonial situations: using a word like melika, as one informant expressed it, would be "like bringing a radio into the kiva." Officially constituted clowns may deliberately make use of radios and telephones, borrowed words, and even foreign pronunciations of Zuñi words for purposes of ceremonial humor, but this license is permitted only to clowns. For other persons the prohibition is leveled against employing certain words, not against referring to foreigners, while speaking in the kiva. If a Zuñi wishes to refer to Spanish-Americans or Anglo-Americans in kiva conversations, he may do so by using the substitute term po?ya· k?apa, literally "wide hats," for this purpose. But the function illustrated here, that of supplying replacements for undignified words of the everyday vocabulary, applies to only a few of the religious terms and cannot be established as an explanatory principle of sacred usage.

Not only do most of the sacred terms replace neutral words, they are also composed of forms that occur in the neutral vocabulary of daily speech. Some exceptions, of course, can be cited. It is possible to find words which are unique to sacred discourse. But such unanalyzable forms, whether native archaic words or words borrowed from the ceremonial vocabularies of neighboring groups, are extremely rare among the Zuñi religious terms I collected. Likewise, words which contain elements denoting specifically religious concepts can be found, but they are few in number. An example is ?oneyalanne, which is sometimes translated as "road, path" and explained as a prayer word substituting for the everyday term ?onanne; sometimes it is translated as "road of life, sacred road." The word is composed of -nne, the singular noun ending, preceded by two stems: ?oneya-, "cornmeal, pollen," and yala-, "to be stretched across." The denotations contained in the word are clearly religious, being associated with the ceremonial sprinkling of cornmeal to form a path from the altar to the entrance of the kiva.

Only a few of the Zuñi sacred terms, then, can be explained as replacements for the more undignified words of everyday usage or as uniquely sacred words containing forms not used in daily discourse and forms with distinctively religious denotations. For the most part, the vocabulary of religious words replaces the neutral vocabulary and is composed of the same forms. A sacred term is marked, how-

ever, by discriminable lexical and semantic features: it is lexically distinct from an everyday term with an equivalent denotative meaning; having a specialized meaning in religious contexts, it is semantically distinct from the same form as used in secular situations. Cultural attitudes provide the content and background for these verbal differentiations. Because the realm of religion carries high value in Zuñi culture, the words habitually employed in sacred contexts acquire connotations of dignity and high status. Furthermore, these words belong to the province of sacred knowledge best understood by old people, and it is this age group which carries the greatest prestige in Zuñi society.

For purposes of definition, slang will refer to those low-valued words and expressions which enjoy only a very brief period of currency. In contrast to the sacred vocabulary, the ephemeral vocabulary of slang is said to be understood and used only by Zuñi children and young adults. Old people are supposed to ignore such "nonsense talking" — penak$^{?}$amme$^{?}$ peye, literally "not-fit-to-be-spoken is-talking," an expression which covers slang, punning, telling tall stories, and other frivolous uses of language. Slang, however, does not carry strong disapproval. It is merely one of the types of foolish behavior normally indulged in by young people, and among members of this age group it can be tolerantly excused.

Specialization of meaning applies to slang as well as to sacred terms. Thus, wapli- in everyday speech denotes "to scratch up the ground, to gouge holes in the ground"; as a slang term popular in the early 1940's it acquired the meaning "to run away, to dash off." The standard word for "a spring (of water)" is k$^{?}$anak"ayinanne, which gained a brief currency among young men as a somewhat rakish word denoting "a woman"; the shift of meaning in this example follows the cultural association, expressed in other Zuñi contexts, between thirst and sexual desire.

The feature of lexical replacement is also characteristic of Zuñi slang. The stem $^{?}$an$^{?}$a'-, "to run away," is the neutral equivalent of wapli- in its slang meaning. Replacing the slang usage of k$^{?}$anak"ayinanne are several words in the everyday vocabulary, such as $^{?}$oka, "a female," or other terms which classify females into specific age groups.

The denotative meaning of many slang terms, however, is difficult to define and seemingly irrelevant to the connotative function of indicating the speaker's intention and attitude. Zuñi slang abounds in expressions used for taunting and chiding or for responding verbally to the reprehensible behavior of others. Most exclamatives are lexical forms whose denotative content approaches the vanishing point and whose meaning function must be largely described in terms of the attitudes they

are understood to convey. Zuñi possesses, in addition to its standard exclamatives, several others that have suffered the faddish fate of slang terms. An example is ma?ana, an exclamative of reproach current about ten years ago as a response to teasing from the opposite sex. The form might be analyzed as ma?, a particle variously translated as "well, so, all right," and ?ana, another particle expressing uncertainty or negation, as "possibly, hardly, not quite, but no." In this exclamative, as in others, however, there is no identifiable denotation which can be analyzed or literally translated. All that can be proposed as a definition of ma?ana is that it was an exclamative, implying reproach or mild rebuke, employed by young people for a short period as a fashionable way of making a verbal response to teasing.

Similarly indeterminate in denotative content are the formulaic utterances of Zuñi slang, each of which begins with a fixed sequence of words and ends with one of several alternative words or phrases. An expression of this type, used by boys fifteen or twenty years ago to convey an attitude somewhat akin to the English "all right for you," is illustrated in wans tom —, "just you (objective case) —." Some of the alternative endings for this utterance are mišo, "lizard," šola, "scorpion," č?ikʷa saʻkoni, "Chikwa Short-Legs" (the proper name and nickname of a Zuñi man), or kʷ?ač?i saʻniko, a playful reversal of syllables on the preceding form. Informants were unable to explain whether "lizard," "scorpion," and "Chikwa Short-Legs" were based upon allusions to stories or local events, or how these references might be related to the meaning of the total utterance. A young Zuñi asserted, with thorough reasonableness, that he had used the expression as a boy simply because he had heard other boys using it. Evidently the denotations contained in the utterance were irrelevant to its intentional meaning, which was tacitly understood. Another utterance of this type, in vogue five or ten years ago, functioned as a snappy comeback to discourage unwarranted curiosity. If a young person were asked what he had bought at the store or what he was carrying in a parcel, he might reply ma? hinik ?ana —, "well, maybe possibly —," completing the sentence with waʻkaši, "cow," k?akʷenne, "house," or kʷa?holi, "something." In this instance, at least, the denotative content of the utterance can be roughly translated as "Well, it might just possibly be a cow (a house, a something)." But the denotations are somewhat oblique and secondary to the meaning conveyed in the speaker's intention, that of making a fantastic reply to an unseemly question.

The denotative significance of some apparently meaningless expressions might be made meaningful if the situations in which they arose were known. A number of slang expressions have reference to specific local events, but the denotative relevance of any such expression will be understood only by the user who is familiar with the incident to which it refers. One of the slang terms which informants were

able to clarify was łuntaža?a, literally "body-lengthens," with a meaning equivalent to "he is girl-crazy." The origin of the term was attributed to a cartoon movie, in which a wolf, on seeing a pretty girl, lengthened its body to approach her. Another example is tohsit ?utteka, "spider bit-him," one of the many expressions meaning "he is drunk." It has reference to a Zuñi trial, held several years ago, in which this statement is said to have been offered as a defense by the relatives of a young man charged with drunkenness and disorderly conduct. It is obvious, however, that a knowledge of the origin of an expression or its transferred meaning is not necessary for its proper usage and understanding. A Zuñi learns to apply terms like łuntaža?a in their specialized slang meanings — and to use the denotatively meaningless expressions illustrated previously — by observing how other members of his culture react to these verbal cues in various situational contexts. In the same way, a native speaker of English at the turn of this century could successfully employ such slang terms as *rubberneck,* "a prying person," whether or not he was aware of its connection with *rubberneck-wagon,* "a sight-seeing bus"; and he would learn the intentional sense of *twenty-three skidoo,* whose origin and denotative connection with the meaning "go away" is obscure even to lexicographers.

Finally, another characteristic peculiar to the slang vocabulary of Zuñi lies in the prevalence of unique forms, forms not appearing at any other level of usage. Especially common among these unique elements, which in my data represent the slang of only the last generation, are forms borrowed from English. An example is the taunting piš piš piš, from English "fish," used by Zuñi boys some twenty years ago; a variant of the taunt was piš no?li, "fish nose," no?li being the Zuñi word for "nose." The insulting allusion here, according to one informant, was to the fish-like nose on the White man's portraits of Indians, as found in calendar pictures or on the buffalo nickle. Another borrowing which also illustrates the Zuñi's adoption of the White man's Indian is the expression su'ča ?intiyan, from English "such an Indian," applied as a joking rebuke to a person excessively awkward in performing some ordinary chore, such as riding a horse or carrying a pail of water. The exclamative su', which conveys the same attitude, is merely a first-syllable abbreviation of the total expression and exemplifies a linguistic device fairly common in Zuñi.

As compared with sacred language, the rapidly changing vocabulary of Zuñi slang shows some distinctive peculiarities: a large proportion of slang words and expressions are denotatively meaningless or indeterminate and possess a communicative function that is largely intentional; slang contains many unique forms, not used in everyday neutral discourse; many of its expressions are based upon specific local incidents; it is a low-valued level of language primarily associated with the

usage of young people. But, like sacred language, slang usage is also characterized by specialization of meaning and by the employment of substitute forms to convey the meanings expressed by other forms in everyday usage.

To the native speaker of Zuñi, the sacred vocabulary carries overtones of dignity and prestige; slang is regarded as a low-valued type of behavior. Both levels of language are distinguishable from everyday usage. Expressed in terms of a formula, a given lexeme (e.g., k²anakʷayinanne) has denotative meaning I ("a spring of water") in neutral usage but denotation II ("a woman") in slang; a given denotative reference (e.g., "frogs") is expressed by lexeme I (takka) in neutral usage but by lexeme II (woliye tinan k²ayapa) in sacred language. These are overtly discriminable features of verbal behavior which aid in serving to distinguish one level of language from another.

The demarcation between these levels, of course, is not sharp and absolute. Many lexical forms overlap all levels without undergoing any specialization of meaning: the pronouns, in addition to their extensive use in everyday speech, are woven into prayers as well as slang utterances. Furthermore, the levels shade into one another by infinite gradations, and they cannot be reduced to a set of neatly separated categories through the device of definition. There are Zuñi forms, near either end of the subtly graded scale of usage, which might be regarded as semi-sacred and semi-slang. Thus, yehču-, "to draw in the breath, to inhale," has religious implications outside of ceremonial contexts in such words as ²i·yehčuk²akka, literally "they caused each other to inhale," but actually having the transferred reference "they greeted each other (in the traditional Zuñi manner)." The transferred meaning is based upon the cultural association between the concept of breath and that of life and spiritual force derived from the divinities: people greet each other by placing their clasped hands upon each other's mouth and thereby passing breath and life to one another.

At the other end of the scale of usage are a host of nearly slang, slightly substandard, or somewhat informal words and expressions. Some Zuñi puns have become part of the standard stock of traditional jokes; but others, which have their source in local incidents and disappear from usage after a short life, should perhaps be classed as slang or semi-slang. A neutral reference to "my wife" is hom ²ill ²ona, "the one who has me"; ²okaccik²i conveys the same denotative reference, but it is usually translated as "the old lady, the old woman" and though part of traditional usage, is a decidedly substandard word which must be used with circumspection. Many terms referring to persons — the words for "Spanish-American" mentioned earlier, nicknames, kinship terms in their humorously extended

meanings — imply attitudes ranging from mild joshing to insult. They are neither slang nor neutral but belong to an intermediate region of substandard and familiar usage.

These intricate levels of usage are learned by the native speaker as part of his cultural experience. He not only acquires a semantic knowledge of the arbitrary denotations assigned to verbal forms, that area of meaning which is relatively easy to translate from one language to another. He also learns that certain conceptual fields, to which the words of his language refer, are highly valued in his culture, while others carry various degrees and shades of undignified overtones. Words referring to "wind," "breath," "inhaling," "blowing the breath upon" have denotative equivalents in English and Zuñi. But these concepts to a Zuñi are linked in a network of religious beliefs, and, through the mediation of these beliefs, words referring to such concepts are potentially loaded with sacred connotations. Similarly, a person foreign to English can be taught the denotative reference of *lamb* without much difficulty; but, unless he has also become culturally conditioned to Christian ideology with its associated pastoral images, he will be unable to react to the potentially religious connotations of such words as *lamb, flock, pasture, pastor, shepherd*. In fact, if the foreigner has been differently conditioned to these ideas in his own culture, he may react in the wrong way. English-speaking missionaries found that the pastoral references of the Old Testament evoked hostile connotations among their Chinese listeners, whose cultural experience had taught them "to regard herding as an inferior way of life of frontier barbarians, and herdsmen as the natural enemies of Chinese farmers."[6]

The native speaker likewise learns to respond to the additional connotations which words assume by virtue of the cultural status of the people who use these words and the situations in which they are habitually used. In a stratified society, such as that in which English is spoken, the verbal habits distinctive of each class acquire connotations of approval or disapproval, depending on the status of that class. In a culture which has accorded high prestige to the written word, especially to the esthetic forms of writing, the vocabulary traditionally encountered in poetry and belletristic prose becomes imbued with overtones of refinement and dignity. But these appear to be merely special cultural conditions in which behavior, verbal or otherwise, reflects the values associated with status groups and prestige situations.

In Zuñi culture there are no class or caste strata against which verbal forms

6 Arthur F. Wright, "The Chinese Language and Foreign Ideas" (in Arthur F. Wright, ed., *Studies in Chinese Thought*, Memoir, American Anthropological Association, no. 75, 1953), p. 301.

take on a spectrum of values. But status differentiation is applied to age groups; and the speech peculiar to young people is low-valued, while that associated with old people is prestigeful. There is no specialized tradition of esthetic writing to give an aura of prestige to its distinctively literary forms and no contrast with the vulgate of forms used only in speech. But a comparable differentiation is applied in Zuñi to its cultural situations; the verbal usage characteristic of sacred places and practices is marked as the dignified level of vocabulary, in contrast to the usage distinctive of the movies, the school playground, and the practices of taunting and teasing.

It would appear, then, that vocabulary levels reflect cultural phenomena of a very general nature. Words acquire connotative gradations in accordance with the cultural values assigned to ideas, status groups, and situations. This area of meaning is difficult to translate from one language to another, especially when the languages are set in cultures which are widely different. For translation in this sense involves finding equivalents for the values associated with the ideas, status groups, and situations in two different cultural systems.

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ON DEVELOPING NEW TYPOLOGIES, AND REVISING OLD ONES

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IF ANY ONE contemporary anthropologist is incomparably more sophisticated than any other anthropologist now living, it is surely the one who asked me why Sapir's typology failed to stimulate further work on typology. The question arose in a double context: Greenberg's 1954 paper on quantifying Sapir's typology; and my statement that Sapir had brought 19th century typology to its florescence in 1921.[1] The question raised can be answered after a distinction is made between the following terms: (1) old typologies; (2) continuation of old typologies; (3) new typologies.

(1) Old typologies are those concerned with a presence or absence computation of linguistic features. They began to appear as early as 1808, and animated linguistic theory of the entire 19th century. A two-fold typology was set up by Fr. Schlegel, recognizing agglutinativeness as one linguistic feature, and inflectiveness as another. A decade later his brother added single wordedness ("isolating"), thereby arriving at a three-fold typology — wherewith the languages of the world could be classified according to a presence or absence computation of the three linguistic features or criteria. Bopp regarded a three-fold typology as sufficiently elaborate for classificatory purposes, and Schleicher deliberately returned to a three-fold typology after both Pott and Humboldt — in that order — had included incorporation as an elaboration of the criteria, thereby arriving at a four-fold typology. Typologies with five or six linguistic features were also proposed, but those most discussed in the 19th century were the three-fold and four-fold typologies. At the end of the century, when typology was full of value judgments and promises while comparative linguistics was relativistic and attested by a method of proof, the more anecdotal, speculative, philosophical linguists—those more inclined to interpretation — discussed typology in Schleicherian terms, with evolutionary stages involving synthesis from thesis and antithesis; at the same time, those critical of the interpretive emphasis but attracted to typology for its re-

1 Joseph H. Greenberg, "A Quantitative Approach to the Morphological Typology of Language" (in *Method and Perspective in Anthropology*, Robert F. Spencer, ed., pp. 192-220, Minneapolis, 1954); C. F. Voegelin, *Inductively Arrived at Models for Cross-genetic Comparisons of American Indian Languages* (University of California Publications in Linguistics, vol. 10, pp. 27-45, 1954); C. F. Voegelin, *American Indian Languages* (ms.).

semblance to taxonomy in natural history, paid attention to criteria in the Humboldtian manner. Even today, in identifying the work of our predecessors, some of us refer to 19th century typology as Schleicherian, others as Humboldtian.[2]

(2) Exemplars of 20th century attempts to revise the old typologies are Jespersen, Kroeber, Sapir-Greenberg, and Milewski.[3] Jespersen is Schleicherian; the others are Humboldtian in their approach. Thus, Kroeber's insistence on incorporation as a typological criterion came about a century after Pott and Humboldt felt the need for more criteria. Though Sapir did not succeed in stimulating further work on typology, he did succeed in getting read — and no reader could miss the point that Sapir wanted more and more criteria in typology; Greenberg concurs — and contributes. In the game of piling up criteria for typology Milewski hits the jackpot. Inasmuch as these 20th century exemplars are concerned with classifying languages according to a presence or absence computation of linguistic features closely similar to those used by the 19th century linguists, they may be said to be developing or reviving or continuing old typologies. This statement is crucial to the point I hope to make; it should not be confused with an alternative question — do equivalences appear between the 19th and 20th century types? This question is irrelevant; what is relevant for identifying the old typology, or any continuation of it, is not the resulting types but the methodology employed in setting up the types.

(3) The new typology is concerned with phonemes and morphemes only after these are interrelated in systems and subsystems; the new typology represents an innovation in the application of modern linguistic analysis, without otherwise differing from it. It is impossible, accordingly, to consider the new typology as being in an opposing or competitive camp — either to straight structural analysis, or to comparative linguistics. It is clear that the typology now being developed, as well as the already developed comparative method, has everything to gain from prior structural analysis.

It is more difficult to explain the relationship between the old and new typologies. What is grist for the mill of the old typology, in the example which follows, appears to be rejected in the new typology — rejected or else made acceptable after being put in a more-than-one-unit frame, here labelled a subsystem of a system.

2 Edward Stankiewicz and C. F. Voegelin, *Annotated Bibliography of Old and New Typologies in Linguistics with Occasional Reference to Cultural Typology* (ms.).

3 Otto Jespersen, *Philosophy of Grammar* (New York, 1924); A. L. Kroeber, *Incorporation as a Linguistic Process* (American Anthropologist, vol. 13, pp. 577-581, 1911); Tadeusz Milewski, *Phonological Typology of American Indian Languages* (Lingua Posnaniensis, vol. 4, pp. 229-276, 1953), Edward Sapir, *Language* (New York, 1921).

Old Typology: Lip rounding in the production of vowels is phonemic only in some languages, as German (*e* vs *ö*); hence natural languages fall into two groups, those in which it is phonemic (as German and Hopi) and those in which it is not (as English and Shawnee). When other linguistic features, parallel to this, are selected, natural languages again fall into two groups after a presence-or-absence computation is made. Since the groups of languages classified are apt to crisscross rather than to coincide, whole inventories out of natural languages tend to be selected for comparison — as how many morphemes, or inflections or other affixes appear or do not appear in a word; how many prefixes and how many suffixes occur or do not occur in a word; presence-or-absence of sandhi between words, and the like. The use of topical or whole inventory linguistic features then lead to classifications of whole languages.

New Typology: Lip rounding is a component of some vowel subsystems. What is taken to be comparable, from one language to another, is a subsystem rather than the components or discrete features which go to make up a subsystem. When vowel subsystems are compared, German and English appear to follow similar subsystems (or perhaps the same model), Hopi and Shawnee different ones — different not only from each other but from English and German as well. I have tentatively set up relatively few models of vowel subsystems; Hockett has set up relatively many vowel subsystems in order to classify much the same sample of languages of the world.[4] Insofar as these preliminary models and subsystems are isomorphic, they are at bottom the same; though devised independently, they are obviously both derived from modern structural analysis. Trubetzkoy took the first step in describing vowels on acoustic rather than on an articulatory basis; Jakobson and others took the last step, with the result that they can set up a whole sound system (consonants as well as vowels)[5] whereas the rest of us work successively with parts of a whole phonology, vowel subsystems, stop subsystems, and so on; but it is possible to translate the articulatory vowel subsystem into the vowel part of the acoustic system (front vowel = acute, back vowel = grave; etc.).

So far, the new typology succeeds only in comparing subsystems, as those published or in press on phonology; and those in manuscript on morphological (short utterance) or discourse (long utterance) analysis. But the direction of development is clearly from subsystem to system, from phonology to short utterance to

4 Charles Hockett, *A Manual of Phonology* (International Journal of American Linguistics, vol. 21, no. 4, part 1, 1955).

5 N. S. Trubetzkoy, *Grundzüge der Phonologie* (Cercle Linguistique de Prague, travaux 7, 1948); Roman Jakobson, C. Fant, M. Gunnar, and Morris Halle, *Preliminaries to Speech Analysis: the Distinctive Features and their Correlates* (Cambridge, 1952).

long utterance, and finally the whole language. The new typology will ultimately arrive at the point where the old typology stops.

It is accordingly reasonable to say that since any one old typology immediately accomplishes its purpose — to classify whole languages — there is nothing left to do; further work is not called for because the methodology employed allows all the classifying of all the languages of the world to be carried out by a single worker. Since linguistic features chosen for any particular old typology are selected as criteria for the typology rather than as a reflection of a full linguistic analysis, the resulting whole language typology is in no sense a reduction of what is known by linguistic analysis of the languages classified. The new typology does achieve such a reduction, as far as it goes. If it goes far enough, it will reduce much of our knowledge of languages which have been structurally analyzed into a low number of systems and subsystems, and thereby contribute to our understanding of the nature of natural languages.

Whenever the typology of subsystems is discussed, two different kinds of questions are raised. Anthropologists anticipate results — in theory as in actual work — while linguists are first concerned with methodology or procedures.

Linguists want to know whether it is intended to obtain formulations of subsystems, directly applicable to the new typology, with the use of a schedule or protocol prepared to guide the worker engaged in linguistic analysis; or whether it is expected that the standard statements on linguistic structure, however obtained, will necessarily be subjected to transformation before being applicable to the new typology. Our experience is with the latter, which turns out to differ unimportantly from what a schedule or protocol would call for. For subsystem typology, the method of obtaining types looms large in the discussion of linguists; but the purpose of the types, once obtained may be scarcely mentioned. No linguist has taken the trouble to list the next steps which will become possible in interpretation, the kinds of results which are reasonably expectable, the immediate purposes of subsystem typology. Lacking such a list, remote purposes are casually imputed to the new typology, such as the undependable assertions about evolutionary stages of development associated with the old typology.

Cultural anthropologists want to know the purposes of subsystem typology, and often seem to place the method of obtaining a typology in secondary position as though the interdisciplinary connection would lie in purposes held in common, rather than in a common methodological basis. At any rate, they have been more explicit about their purposes than have linguists — some in terms of culture types or sub-cultures richly exemplified with specific ethnographic data, as in the work

of Julian Steward and his associates; others, in comprehensive or far sweeping theory which remains abstract or aloof from ethnographic detail, as in the culturological statements of Leslie White. It seems natural and is certainly traditional in anthropology to begin with a statement of purpose — witness Kroeber's celebrated *Handbook of California Indians* which begins with the announcement that though it may seem otherwise, the purpose is historical. It seems unnatural and is certainly not traditional in linguistics to list the purposes of a work or a method. If apology is needed, I should say that since there probably is, as we all assume, something in common between cultural and linguistic purposes, lists such as that which follows will perhaps focus attention on areas in typology where the purposes overlap.

The first four purposes listed below may be termed correlative or collateral or extra-linguistic. The next four purposes are inter-linguistic, since they relate subsystems to other kinds of linguistic interests. This list is neither comprehensive nor conclusive; it is an open list of the immediate purposes of subsystem typology.

(1) To check hypotheses of the form that some quantification in culture is associated with some linguistic quantification of like magnitude; for example, Clyde Kluckhohn's to the effect that in a given society the number of kinship distinctions will approximate the number of phonemic distinctions. It would be easy to check the latter for over a hundred languages in the typology of Hockett's *A Manual of Phonology*.

(2) To check hypotheses of the form that an association is expectable between a type within social organization and a type of stem affixation; for example, Nathan Altshuler's — that matrilineal descent will occur in a society whose language shows an elaboration of verb affixation, while patrilineal and bilateral types are associated with languages showing elaborate noun affixation types.

(3) To provide a finder list of languages in which experiments can be set up to test Whorfian hypotheses concerned with (a) the channeling of perception through linguistic categories, and with (b) unrealized cultural potentials or aptitudes or developments. If Hopi is better able to express quantum mechanics than German or English, the relevant feature of Hopi verbs which makes this possible can be typed, and other languages sharing verb subsystems of this type can be listed.

(4) To compare cultural domains — as agriculture, seed gathering, arctic ecology, class societies, money economy—with corresponding lexical subsystems

which give more than mere word counts; for example, sets of suffixes which are associated only with trees, or only with numbers used in counting.

(5) To estimate the range or limits of languages of the world for all subsystems considered. In stops, for example, English appears to stand midway in the range, having two series (voiced and voiceless); some languages show twice as many series, others half as many. The range of any types within subsystems of this kind, whether concerned with phonemes or morphemes, short utterances or long utterances, is always open; immediate generalizations on the limits of natural languages can be safely made with the understanding that the limits set up will be extended if new types are discovered.

(6) To do the same within language families and phyla. Purpose 5 would be analogous to finding the total range of structure in biology (plants and animals and micro-organisms); purpose 6 in finding all variations within a species or at most a genus — and not restricted to variations which are cognate.

(7) To discover laws of implication (functional relations) among subsystems. The question of what constitutes equivalence between languages, aside from cognates — as in transfer grammar and in multiple stage translation — can be considered under implication.

(8) To discover the order of learning and unlearning of different subsystems and different types of the same subsystem — learning for children and perhaps for those practicing one or another literary genre; unlearning for people suffering from aphasia and possibly from some kinds of senility.

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CHANGING EMPHASES IN SOCIAL STRUCTURE

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WHEN SCIENTISTS approach a new subject, their first task, after that of raw description and preliminary ordering, is to discover which descriptive features of the phenomena under observation are particularly useful for grouping or differentiation, and to initiate classification on the basis of such criteria. Their next task is to determine which features isolated according to one set of criteria coexist with features isolated according to other useful criteria. In this way they arrive at larger typological classifications which bring a measure of systematic order into what had first seemed sheer descriptive chaos. Noteworthy examples in other sciences include the Linnaean classification of living organisms and the periodic system of classifying chemical elements devised by Mendelyeev.

In anthropology, the initial classificatory task has by now been substantially accomplished in the field of social structure. Through the contributions of men like Morgan, Tylor, Rivers, Kroeber, Lowie, Linton, Spier, Kirchhoff, Radcliffe-Brown, Steward, and Eggan we now possess satisfactory criteria for differentiating types of family organization, kin and local groups, and kinship terminology and behavior patterns. Moreover, the work of Rivers, Lowie, Radcliffe-Brown, and many others, including the present writer, has shown how these features are combined with one another in particular ways to produce a finite number of types of social organization, which in their totality represent a systematic classification comparable to those of Linnaeus and Mendelyeev.

However useful, and indeed indispensable, is this task of classification, it is by no means the ultimate goal of science. Any typological system is, by its very nature, static in character. It takes on full meaning only when scientists are able to demonstrate the dynamic processes which give rise to the phenomena thus classified. The Linnaean system, for example, came alive only after Darwin had discerned the processes of variation and natural selection, and especially after the geneticists had laid bare the dynamic mechanisms of heredity.

It is the contention of this paper that the anthropological study of social structure has gradually been emerging from its classificatory or typological phase, and that the changing emphases which we can currently observe are characterized for the most part by a common concern with dynamics or process. Before examples are

cited, it will be well to review briefly the cardinal facts about human behavior which must be fully recognized before a genuine dynamic orientation becomes possible.

First of all, we must be fully aware that man is an animal, a mammal, and a primate with all the potentialities with which the processes of organic evolution have endowed him, including in particular the capacities for perception, learning, and personality development which have been the special study of psychology.

Secondly, we must recognize that man always lives in societies and be fully cognizant of all the implications of this fact, as they have long been known to sociologists. Unlike the ants and bees, man is not biologically a social animal equipped by heredity with prepotent capacities for complex associative life, but in every individual case must be bent and broken to group living through the arduous process of socialization and be kept in the paths of conformity through the imposition of social controls. The first anthropologist fully to appreciate this basic fact was Malinowski[1] with his emphasis upon the factor of "reciprocity" in the maintenance of norms of social interaction.

Thirdly, we must realize that every human society has a culture, that cultures are acquired and transmitted exclusively by learning, that their elements are only in part shared by the entire society, being largely distributed according to the prevailing system of social relationships in association with ascribed and achievable "statuses,"[2] and that the norms of man's social interaction are as definitely a part of culture as are the norms of his reactions to the external material world. It is for this reason, incidentally, that the writer prefers the term "cultural anthropology" to "social anthropology," even for the study of social organization.

Fourthly, we must always remember that cultures change with time, and therefore always have histories. They reflect the opportunities and limitations presented by the habitat of the particular society and the accidents of epidemics, crop failures, and natural calamities, of discoveries and inventions, of intergroup contacts, wars, conquest, and migration, of strong and weak political leadership, and innumerable others. It is thus quite clear that the form and content of any culture at any particular time will reflect its form and content at an earlier period as well as the forces and influences playing upon it at the moment. Equally crucial is the recognition that cultural change, like organic evolution, proceeds, not haphazardly, but according to a definite dynamics. Among the specific processes involved, three basic ones are today generally recognized: (1) the process of cultural innovation, most recently analyzed by Barnett;[3] (2) the process of cultural borrowing, whose

1 Malinowski, 1932, pp. 23-27.
2 See Linton, 1936, p. 113.
3 Barnett, 1953.

dynamics has been most clearly set forth by Dollard;[4] and (3) the process of readjustive integration.[5]

Applying these crucial findings of our science to the special field of social structure, we can observe the static yielding to the dynamic approach along at least two distinct continua. The first is the time continuum. We have succeeded in combining the historical and functional points of view so thoroughly that we are showing increasing skill in interpreting historical changes in social organization as adaptive modifications reflecting the processes of innovation, borrowing, and integration. The second continuum is that of the life history of the individual. We are beginning to view social systems from the point of view of the individuals who live through, uphold, and modify them — fitted to a preëxisting system through the process of socialization, learning the appropriate motivations and goals, occupying successive statuses through age ascription and individual achievement, yielding to the pressures for social conformity, and yet facing and creatively solving problems as they arise in such a way that the social norms are themselves gradually changed.

The emerging dynamic approach to social structure contrasts sharply with all earlier approaches. Among the more important of these, one substituted for history and process a single inevitable and universal succession of structural forms, with matrilineal descent everywhere yielding in time to patrilineal and the clan to the family, with no conception of the individual except as the slave of custom, and with no comprehension of the nature of social interaction. A second saw matrilineal and patrilineal complexes striding around the world in seven-league boots, stressing history without process, and dismissing man as uninventive and society as irrelevant. A third treated, and sometimes still treats, social structure as a series of abstract forms, for all the world like a high-school mathematics teacher's blackboard demonstration of a theorem in geometry, rejecting even processless history along with all psychology and even culture, and reducing man himself to an automaton actuated by stresses flowing from structural principles. If this latter approach enjoys more respect today than the other two, it is largely because its proponents stress field research and have produced an unusual number of excellent descriptive studies. In its theoretical orientation, however, it seems no less sterile than the others, and as even more devoid of dynamic quality.

Let us now look at some concrete examples of the changing emphases in social structure. The trend begins with the students of Boas, who professed to be primarily concerned with history but who nevertheless recognized clearly that history operates through process. A single instance must suffice — an acute article by

4 Miller and Dollard, 1941, pp. 253-273.

5 See, for example, Linton, 1936, pp. 347-366.

Spier[6] in which he used data from Havasupai social organization to illuminate the dynamics of the development of unilinear kin groups.

The greatest stride forward, however, was initiated by Eggan, who for the first time succeeded in effectively fusing the historical and the functional approaches, first in his work on the Southeast and subsequently on the western Pueblos.[7] In the writer's opinion, Eggan deserves far more credit as a creative innovator than has as yet been accorded him. He was followed in the Southeast by Spoehr,[8] who laid bare the similar steps by which a series of kinship systems independently adjusted to the transition from matrilineal to bilateral descent. The writer[9] has attempted to show that cultural change in the realm of social structure is not random but is controlled by a principle of limited possibilities.

A considerable proportion of the recent work on social organization by American anthropologists reflects a comparable awareness alike of history and of process. Two representative examples will serve as illustrations. Both are as yet unpublished articles which have recently been brought to the writer's attention — one by L. C. Faron entitled "Araucanian Patri-Organization and the Omaha System" and the other by R. F. Murphy entitled "Matrilocality and Patrilineality in Mundurucú Society." Both compare the findings of recent field research in South America with published reports from an earlier period, and reconstruct the course and dynamics of change with admirable sophistication. If, as the writer believes, these papers are typical of recent trends, the next decade may well see noteworthy advances in the dynamics of social organization.

Not only can a knowledge of history and process illuminate our understanding of social structure, but the reverse is also true. Features of social organization can frequently yield clues to the mechanisms of culture change. One illustration may be cited. It has long been observed that some regions of the world, like aboriginal Australia and the Northwest Coast of North America, exhibit marked cultural homogeneity over wide areas, whereas others, like Melanesia and central California, reveal sharp differences from tribe to tribe and even from village to village within the tribe. Different branches of the Pomo tribe, for example, have kinship systems belonging to types as widely different as Hawaiian, Crow, and Omaha — a divergence within one tribe greater than that within an entire culture area in such surrounding regions as the Northwest Coast, Plateau, or Great Basin.

Comparative evidence suggests that such contrasts may often be explained by

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6 Spier, 1922.
7 See Eggan, 1950.
8 See especially Spoehr, 1947.
9 Murdock, 1949, pp. 198-239.

differential features of social organization, notably the presence or absence of a rule of local exogamy. Where local communities, as in native Australia or the Northwest Coast, are regularly exogamous, whether organized as localized clans or as what the writer has called "patri-demes," every marriage brings together in the family two persons of at least somewhat variant cultural backgrounds, and their children grow up exposed to both. This accomplishes two things. It exposes every individual in the region — not merely an occasional trader or traveler — to conditions favorable for acculturation. Even more important, perhaps, it results in accomplishing cultural borrowing during the period of early socialization, when imitative learning is much more perfect than in later life. It puts the socialization process to work, so to speak, in support of the diffusion process. Culture is borrowed through the very mechanism by which it is transmitted. Diffusion thus proceeds with extreme ease over the entire area where local exogamy prevails, and widespread culture similarities are the inevitable result.

In default of a rule of local exogamy, most marriages take place between members of the same community. Hence culture borrowing can occur only on the adult level, and even this tends to be inhibited by the fact that kinship ties between different communities are few and weak. Under such circumstances the processes of cultural differentiation are likely to outrun the leveling influence of diffusion, so that even neighboring villages of the same tribal group may exhibit marked cultural divergences, as in Melanesia and central California.

Conceivably the very wide geographical distribution of many early archaeological cultures in both the Old and the New World may reflect exogamous practices rather than meagerness of the cultural base. Small local bands tend to exogamy because composed of near kinsmen. Perhaps local endogamy became common only after technological advances had paved the way for local groups of substantial size. If such be the case, marked regional differentiation may be more characteristic of later than of earlier phases of cultural development.

It may be remarked parenthetically that the features ascribed by Redfield to "folk societies" seem to be particularly associated with peoples practicing local endogamy. Those characterized by local exogamy, even where extremely backward in culture, often exhibit a relatively cosmopolitan world outlook.

The potential contributions of social structure to an understanding of cultural change are also illustrated in an important paper by Bruner[10] on Mandan-Hidatsa kinship. Bruner is able to demonstrate, on the basis of completely recorded genealogies, that every member of the community studied who follows the European, i.e., Eskimo, pattern of kinship terminology is descended from a mixed marriage in

10 Bruner, 1955.

either the first, second, or third ascending generation. In other words, acculturation in kinship usage has taken place only when mediated by the socialization process, never on the basis of adult interpersonal contacts alone.

All in all, the static view of social structure which seeks explanations exclusively within the existing framework of a social system on the highly dubious assumption of cultural stability and nearly perfect functional integration seems clearly to be giving way, in this country at least, to a dynamic orientation which focuses attention on the processes by which such systems come into being and succeed one another over time. A second dynamic approach is also discernible, though less well advanced. This views a social system from the standpoint of the life histories of the individuals who move through it.

One line of attack is to clothe the dry bones of formal structural analysis with the living tissues of personality dynamics as these are coming to light through our developing knowledge of culture and personality. Some challenging suggestions along this line appear in the unpublished papers prepared in 1954 for the Social Science Research Council Summer Seminar on Kinship, in which Aberle, Basehart, Colson, Fathauer, Gough, Sahlins, and Schneider participated.

A second line of attack consists in following the lead of Linton[11] and examining not only the familial and kin groupings of a social system but also the age statuses which individuals of each sex successively occupy during a normal lifetime and which often prescribe shifting goals and differential behavior.

An excellent example of the new insights which such an approach can yield is provided in a forthcoming paper by Goodenough[12] reappraising residence rules. Noting that he and another competent anthropologist, John Fischer, working in the same community in Truk at nearly the same time and using the same intensive methods of genealogical recording and household censuses, reached markedly different conclusions as to the statistical incidence of matrilocal and patrilocal residence, Goodenough properly concludes that the discrepancy could only flow from differing definitions of the two residence rules. In seeking a clarification, he then turns to his own field data from the Nakanai of New Britain in Melanesia, and demonstrates that for this society even the most accurate census data are incapable of revealing the residence pattern.

Among the Nakanai, a man normally lives with his father until the latter's death, then removes to the hamlet of his maternal uncle. If, however, his father dies before he himself marries, he goes to live with a father-substitute, who may

11 Linton, 1940.
12 Goodenough, 1955.

be related to him in a variety of ways, who may live in the same or another hamlet, and who may be succeeded by other father-substitutes. Even the most careful household census among the Nakanai can reveal nothing but a bewildering chaos of residential practices, since the number of cases of residence with a father-substitute is high and their variety immense. No pattern whatsoever emerges until attention is focused on the lifeline of the typical individual. Then it becomes clear that the rule of residence is definitely what we might call patri-avunculocal, i.e., preferably patrilocal in the early years of marriage but in later years preferably avunculocal in the hamlet of the man's maternal uncle. The diverse other instances are resolved by recognition of the fact that the Nakanai regard living with a father-substitute as merely a variant of the initial patrilocal norm forced by the unfortunate circumstances of one's own father's premature death.

A comparable and even more complex case is provided by the Ashanti of West Africa. When I was writing my *Social Structure*, the chief sources available on the Ashanti were the works of Rattray, and I encountered extreme difficulty in typing the social system of this society. Since then, new data have been presented by Fortes[13] which provide a basis for resolving the difficulty.

What Fortes reveals is an extraordinary complexity with regard to rules of residence and forms of family organization. Patrilocal, avunculocal, neolocal, and even a form of matrilocal residence all occur with considerable frequency, as do independent nuclear families, independent polygynous families, and extended families of patrilocal, avunculocal, and mixed types. No one residence pattern or type of family organization enjoys any overall preference or occurs with sufficient statistical frequency to justify setting it up as the prevailing social norm. Ordinary synchronic structural analysis, consequently, leaves us with no alternative except to characterize the system as fluid and patternless. Such a conclusion, however, would be completely erroneous. In actuality there is a high degree of patterning, but this becomes apparent only when we follow Ashanti men and women through their typical life histories in terms of the successive statuses which they occupy and the shifting norms which characterize these statuses.

In the first place, husband and wife do not ordinarily live together during the early years of married life. Each remains with his own relatives, although the wife cooks for her husband and sends the food to him daily by couriers from her household. From the point of view of the children born during this period, residence is matrilocal, i.e., with the mother and her kinsmen.

After a few years, however, the wife leaves home and joins her husband —

13 Fortes, 1949.

presumably about the time when her oldest children require a father's participation in their socialization. During this second period of life, residence, from the point of view of the child, is patrilocal, i.e., with the father and his relatives.

At some time during late childhood or adolescence, or occasionally even later, children of both sexes normally leave their father's home and go to live with a maternal uncle. In other words, they shift to avunculocal residence.

The residence pattern in later life varies with circumstances. A minority of adult males remain with their fathers in patrilocal residence, and are ultimately joined by their wives and children. The majority, however, live with their maternal uncles after they marry and produce a family. A nephew who is to succeed his uncle will normally continue in avunculocal residence permanently. For those who are not prospective heirs, however, lifelong dependence is disapproved, and it is the goal of every successful man to establish an independent household.

This is accomplished in either of two ways. If the man's mother is still alive, he feels obligated to establish her in an independent household as its head. In this case, she naturally leaves her husband, and is joined by some of her sisters and daughters as well as by the son who has provided the new home. From the point of view of this son, though not of his mother, wife, or children, residence is matrilocal. True matrilocal residence, where a husband lives with his wife and her kinsmen, is disapproved and rare.

If the man's mother is dead, his goal is to leave his maternal uncle and to establish neolocal residence in an independent household of his own. Here he brings his wife and children, who are gradually replaced by his sisters' children as he and they grow older. Thus, when we follow an Ashanti man throughout a normal life career, we find him ultimately the head of an avunculocal extended family, either as the successor to an uncle or other matrilineal relative or as the founder of an independent household.

In societies like the Nakanai and Ashanti, where goals and behavior shift with age statuses in such a way as to complicate the structuring of social groups, the basic patterns may often be better revealed by the life histories of reasonably successful individuals than by demographic analysis. Ashanti society may, with considerable justification, be classed as fundamentally avunculocal because headship of an avunculocal extended family is the life goal toward which every Ashanti male strives and is in fact achieved with sufficient frequency to maintain goal-directed behavior at all levels. The fact that only a minority of the men have actually attained this goal at any given moment, or even ever attain it, seems less important than that the great majority accept the goal and direct their behavior accordingly.

This mode of analysis can even yield new insights into the structure of our own

society. With us, of course, status is achieved primarily through advancement in the social class system rather than by age or succession to family headship. Any individual can, through energy, skill, or luck, rise during his lifetime from any point of origin in the social class hierarchy to a secure position in the upper middle class. At any one time, of course, not more than perhaps twenty percent of the total adult population actually enjoy such a favored status. Nevertheless, the flow of immigration has assured steady increments at the bottom of the class structure, and our differential birth rate, expanding economy, and increasing standard of living have continuously opened up new positions at the top, so that a considerable number of people actually do rise from humbler origins to the upper middle class —a number sufficient at least to maintain effort directed toward this goal in a very much wider segment of the population.

This confers upon our society a basically upper-middle-class orientation, despite the fact that the members of this class never actually constitute more than a minority. We lack a strong aristocratic tradition in part because membership in our small upper class is not generally attainable through individual effort and its goals are therefore not widely accepted, and in part because the position of this class is not buttressed by feudal land tenure or any comparable source of overwhelming economic or political power; every study of the American class structure, indeed, has shown per capita wealth to be greater in the upper middle than in the upper class. Nor are we committed to socialism with its upper-lower or working class orientation, which tends to be accepted in societies like Australia, New Zealand, and the Scandinavian countries where there are insufficient openings at the top to reward and thus maintain upper-middle-class goals throughout the population.

In conclusion, it should be emphatically reaffirmed that the static approach to the analysis of social structure has been a valuable and necessary first step in the development of this branch of our science. We should not forget its substantial contributions as we move in the direction of increasing dynamism and catch glimpses of the greener pastures which lie ahead.

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COUSIN-RIGHT IN MIDDLE EASTERN MARRIAGE

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INTRODUCTORY

THE MIDDLE EASTERN FAMILY has been characterized as patrilineal, patrilocal, patriarchal, extended, occasionally polygynous, and emphatically endogamous.[1] The first five of these six basic traits are found also in one or more of the cultures contiguous to the Middle East. The sixth, endogamy, and especially in its most conspicuous Middle Eastern form which is marriage between a man and his father's brother's daughter (*bint 'amm* in Arabic), is practically nonexistent outside the Middle Eastern culture area. The origin of Middle Eastern patrilateral parallel cousin marriage, its historical development, its distribution over the area, its frequency in the various places of its occurrence, its function in the social structure, its meaning for economic life, its role in Middle Eastern traditionalism, and its biological significance are some of the issues which deserve detailed consideration. These and other aspects of *bint 'amm* marriage will have to be treated on other occasions. The only aspect dealt with here will be the compulsory nature of *bint 'amm* marriage as manifested in the unwritten law that a man has the right to marry his *bint 'amm*, and that nobody else is allowed to marry a girl until and unless her *ibn 'amm* (that is her father's brother's son) gives his consent.

ARABIA

Let us begin our survey with the historical core of Middle Eastern culture, the Arabian Peninsula. In all parts of the Peninsula (with very few exceptions, of which later) a man's right to his father's brother's daughter is upheld. This right is not voided even by a great discrepancy in age.[2] The force of this traditional right is so strong that when it is infringed and then avenged by the offended male cousin by bloodshed, this meets public approbation.[3] In the reports on the cousin's right, no difference in emphasis can be discovered between the accounts of travellers and explorers of the 19th century and of the 20th century, which seems to indicate that no relaxation of this traditional law has taken place in the last 100 or 150 years. One of the early 19th century accounts is that of J. L. Burckhardt. According to him,

1 Patai, 1951, pp. 408-409; 1952, pp. 8-9.
2 Thomas, 1931, p. 275.
3 *Ibid.*

All Arabian Bedouins acknowledge the first cousin's prior right to a girl; whose father cannot refuse to bestow her upon him in marriage. . . . A man has an exclusive right to the hand of his cousin; he is not obliged to marry her, but she cannot, without his consent, become the wife of another person. If a man permits his cousin to marry her lover, or if a husband divorces a runaway wife, he usually says, "She was my slipper, I have cast her off."[4]

Similarly Burton reports that "Every Badawi has a right to marry his father's brother's daughter before she is given to a stranger; hence 'cousin' (Bint Amm) in polite phrase signifies a 'wife.'"[5]

Doughty, on his way down to Medina, was told that marriage "betwixt brothers' children" was the most lawful.[6] On one occasion he was asked by a petty sheykh whose wife, Hirfa, had run away, to persuade her to return to him. Upon undertaking this mission, Doughty was received by Hirfa's kinfolk, and her young cousin said to him: "I am her father (meaning I have the *patria potestas* over her) and Hirfa is mine, Khalil; no! we will not give her more to Zeyd."[7] Wilfrid Blunt had a similar experience when he went to ask for the hand of a girl on behalf of a friend of his in the Nejd. While the negotiations over the bride-price were in progress, a cousin "appeared on the scene and claimed his right to Muttra or an equivalent for her in coin."[8] William Robertson Smith, speaking of the township of Taif in the Hijaz, to the east of Mecca, states that

It must be understood that the preference for marriage between cousins, which exists also in Egypt, has here the character of a binding custom. A father cannot refuse his daughter to his brother's son, although another suitor offers a much higher dowry, unless the cousin is of weak intellect or notoriously of bad character. The cousin, if rejected for a rich suitor, can step in even at the last moment and stop the wedding."[9]

The same rule holds good in Southern Arabia.[10] On the other hand, in the Qara Mountains (in the hinterland of the Dhufar coast in southern Arabia), only among the Mahra, a semi-nomadic cattle-breeding tribe, is the right of the *ibn 'amm* to marry his father's brother's daughter insisted on. Among the other tribes of these mountains the sole right of disposal vests in the father of the girl.[11] The probable explanation of this exception is that these relatively isolated mountain

4 Burckhardt, 1830, pp. 64-65, 154. In a footnote Burckhardt refers to the Biblical parallel of Ruth iv:7-8.

5 Burton, 1913, vol. 2, p. 84.

6 Doughty, 1888, vol. 1, p. 231.

7 *Idem*, vol. 1, p. 236.

8 Blunt, 1881, vol. 1, p. 142.

9 Smith, 1912, p. 563.

10 Berg, 1886, p. 45; Bent, 1900, p. 144; Thomas, 1931, p. 275.

11 Thomas, 1932, p. 99.

tribes have not been sufficiently exposed to Muslim-Middle Eastern cultural influences and therefore have retained different (and probably older) customs.

Also among the Jews of Yemen cousin-marriages are frequently practiced and occasionally insisted upon by the *ibn 'amm*. Several cases are known in which the consent of the *ibn 'amm* to the marriage of his *bint 'amm* with another man had to be bought.[12]

The nomadic tribes of northern Arabia represent in this respect (as in many others) true Arabian traditions. The foremost tribe wandering over a large territory in the western section of this area is the Rwala. Among them the *ibn 'amm* has the right to marry his *bint 'amm*. His position in relation to her is so strong that if any other man wants to marry the girl, he has to come to the *ibn 'amm*, ask his permission, and pay him what he wants.[13] Curiously, Musil makes the statement that the "eben al-'amm . . . is generally a son of her [the girl's] father's cousin," whereas all that is known of this custom would make us expect the *ibn 'amm* to be among the Rwala as well the girl's father's brother's son. It would seem that the otherwise meticulous and accurate Musil made a mistake here. This becomes more likely if we read what Musil says in the same context, namely that if the girl has no *ibn 'amm*, she falls to the next nearest kinsman in the male line.[14] This makes it the more probable that the *ibn 'amm* must be the *nearest* male relative with whom marriage is possible, that is the father's brother's son. If the *ibn 'amm* does not give his consent to the marriage of his *bint 'amm* to another man, the girl may be doomed to become an old maid.[15] If the girl refuses to marry her *ibn 'amm* he may kill her without becoming liable to compensation. Only if the father of the girl gives her in exchange for a woman whom he himself wants to marry, does this exchange-marriage void the rights of the *ibn 'amm*.[16] Also among other tribes in the same area, if a man marries his daughter to another man without the consent of her *ibn 'amm*, he risks his life, and there are many instances of blood-revenge provoked by such acts.[17]

Even if a man is not in a position to marry his *bint 'amm* forthright — for lack of funds to pay the bride-price or for any other reason — he may "reserve" the girl for himself by making a public and formal declaration of his intentions to marry her at a future date. Although ordinarily such a reservation of the *bint 'amm* would not seem to be necessary, if it is done it, so to speak, clinches the cousin's

12 Schulman, 1955.
13 Musil, 1928, pp. 137-140.
14 *Idem*, p. 137.
15 *Ibid.*; Perthuis, 1896, pp. 98-102; Blunt, 1879, p. 308.
16 Musil, 1928, p. 137.
17 Bouvat, 1921, p. 39.

claim and has the character of a formal engagement.[18] It can also happen that a man who is not the *ibn 'amm* of a girl, but a more remote relative, reserves her for himself soon after her birth, and in this case he acquires priority.[19]

A case reported from the princely family of the Rwala throws additional light on the rights and involvements of cousin-marriage. Prince Nuri had a brother, Fahad, with whose approval a certain Ṭrad al-Arafa who posed as Fahad's son but who in reality was the son of Khalaf eben Iden, forced one of Nuri's daughters into his tent intending to marry her. The girl, however, was able to jerk herself loose from him, and she fled into the desert where she was found by her brother Nawwaf. Nawwaf was greatly incensed at the injury done to his sister and persuaded Nuri not to tolerate such a disgrace. Nuri, although he was the paramount sheykh of the Rwala, felt it necessary to be assisted by three chiefs, and together with them went to Fahad to talk the matter over peaceably. After a long conference it was agreed that Ṭrad should not have Nuri's daughter for a wife.[20]

EAST JORDAN

Among the tribes inhabiting the area east of the Jordan and the Dead Sea, which in the past was variously called Arabia Petraea or Moab and most of which today forms part of the Kingdom of Jordan,

> the *ibn 'amm* can interfere at the last moment with the marriage of his *bint 'amm* to another man. In order to circumvent the claim of the *ibn 'amm*, a man will carry off a girl and place her under the protection of another tribe, and then return to her father and enter into negotiations for the marriage.[21]

According to another observer, a man not only has the right to, but *must* claim for himself, to the exclusion of every other suitor, the hand of the daughter of his paternal or maternal uncle. It happens but rarely that a man renounces this right of his own free will. Even if the girl and her father do not want him, he as a rule insists, and they have to conform with the custom. If a man has any reason to suspect that his uncle wants to give his daughter to somebody else, he resorts to the following rite. He takes five camels and leads them to the tent of the tribal sheykh. There, in the presence of witnesses, he says: "Here are camels for my cousin; I claim her." The father of the girl answers: "Take them away; we do not want it [namely the marriage]." The suitor goes, but returns five days later with four camels, saying: "Here are my four camels for the girl; I want her."

18 Musil, 1927, p. 175.
19 *Idem*, p. 285.
20 *Idem*, p. 240.
21 Musil, 1908, vol. 3, p. 174.

Again the father answers, "Take back your camels; we do not want it." After another five days the suitor presents himself at the tent of the sheykh or of the father with three camels, only to receive the same answer. The same encounter is repeated two more times, and then finally the youth brings a sheep or a goat to the sheykh's tent or to the father's tent, slaughters the animal and says: "This is the sacrifice of the girl." This act gives him the definitive right to take his cousin to wife, and he may even carry her away with him then and there.[22]

In particular, this right to the cousin's hand exists and is exercised among the following tribes: the Beni Ṣakhr, the Howeytāt, the Hajāya, the Catholic Bedouins in the vicinity of Madeba (with the dispensation of the Church), and the Fuqara. Differences in age, or the wishes of the girl are thereby completely disregarded.[23]

The actual working of the law can be illustrated by a number of examples taken from this area. A father arranged for the marriage of his daughter with an outsider, without obtaining the consent of her *ibn ʿamm*. When the marriage procession progressed with the bride toward the house of the bridegroom, the *ibn ʿamm* rushed forward, snatched away the girl and forced her into his own house.[24] This was regarded by all as a lawful marriage, and the father who originally objected to his nephew because the outsider agreed to pay a high bride-price for his daughter, now received no bride-price at all.[25]

In some cases one and the same bride-price acquires a girl not only for the *ibn ʿamm* who actually marries her in the first place, but, should he divorce her, for his brothers as well. Jaussen reports such a case in which a man paid a she-ass as the *mahr* for his *bint ʿamm*, married her, then divorced her, whereupon his brother took her in marriage by virtue of the same she-ass, then he divorced her too, and she was married in succession to the third and fourth brothers, and finally remarried the first brother, all for the one bride-price of a single she-ass.[26]

In general, at the beginning of the 20th century the situation with regard to the rights of the *ibn ʿamm* among the tribes of the north Arabian and Syrian deserts was as follows. If a young man desired the hand of a girl who had cousins, one of the cousins who wanted to have the girl would caution the stranger to withdraw. If the latter persisted even after this admonition, it was his task to win, or rather to buy, the consent of the cousin who was the legal suitor of the girl. Otherwise, the

22 Jaussen, 1908, pp. 45-46.
23 *Idem*, pp. 46-47; Jaussen-Savignac, 1914, p. 24.
24 Cf. the "forcing of Nuri's daughter into the tent by Ṭrad al-Arafa, above, p. 374.
25 Jaussen, 1908, p. 46.
26 *Idem*, pp. 46-47. The occurrence happened in the Hajāya tribe.

stranger would have exposed himself to the enmity of the cousins and to mortal danger.[27]

A CHRISTIAN CASE HISTORY

Jaussen reports a case of which he heard among the Catholic Bedouins of Madaba in Transjordan. One of them, Soleymān Shuweyḥāt, had a daughter, Ḥaḍra. In accordance with the cousin's right, his brother's son, Khalaf Shuweyḥāt, should have married the girl. But at the time when the young Khalaf reached the age of marriage, Ḥaḍra fell ill: a pimple developed on her cheek, and she appeared to be attacked by a serious illness. Khalaf thereupon took another wife without either making any demand on the father of Ḥaḍra, or informing him that he renounced his rights to her. Ḥaḍra remained in her father's house until the age of twenty-two. She recovered completely, and was demanded in marriage by another member of the tribe. Khalaf, hearing of this event, made immediately use of his cousin's right and claimed the girl for his younger brother. This was the Arab right. But Soleymān summarily rejected this demand, saying that Khalaf had dishonored his daughter by refusing to marry her. His daughter was now promised to another man and would not be given to Khalaf's brother. Khalaf then made an appeal of protection to Sheykh Ya'qūb, asking him to help make the cousin's right prevail. The sheykh could not refuse such a request. But being a relative of Soleymān Shuweyḥāt, he used circumspection, lest Soleymān turn to another, more powerful, chief, and he find himself involved in a serious conflict. After a series of discussions, Ḥaḍra was married to her suitor towards whom she inclined, and who was twenty-two years old, while Khalaf's brother was merely fifteen.[28]

PALESTINE

Among the Arabs of Palestine "a cousin is by custom the most eligible bride, and a youth has prior claim over all other suitors and their pretensions, if he chooses to demand her in marriage."[29] This right is alluded to in a number of proverbs. *"Ibn al-'amm bitayyiḥ 'an el-faras"* — "The *ibn 'amm* takes down from the mare" (in another version: from the camel), that is he can take the bride down from the animal which carries her in the marriage-procession to the house of the bridegroom, thus preventing her from marrying an outsider, and marry her himself.[30] Another proverb current among the Bedouin of southern Palestine as well as among the

27 Anastase, 1908, pp. 186, 189.
28 Jaussen, 1908, p. 47.
29 Lees, 1909, p. 121.
30 Barghuthi, 1922, p. 28; Jaussen, 1927, p. 62; Canaan, 1931, p. 178; Granqvist, 1931, p. 72.

Rwala, has it: "Her (i.e., the girl's) binding and her release are in the hands of her *ibn 'amm*."[31] Still another proverb warns: "The girl who is desired by her *ibn 'amm* is forbidden to a stranger." In the same sense it is also said: "The oil which is wanted by its owner is forbidden to be given to the mosque."[32]

If a girl has no *ibn 'amm*, or if the *ibn 'amm* renounces his right to her, the second in line for her hand is the *ibn khāl*, her mother's brother's son who, in turn, is followed by the others in the family and the brother of her sister's husband, each having a right of priority in proportion to the degree of his relationship.[33]

Jaussen reports that among the inhabitants of Nablus in central Palestine, the right of a man to marry his *bint 'amm* "is religiously respected" and "has an immutable value."[34] The same is true elsewhere in Palestine in tradition-abiding circles.[35]

The present writer's observations among middle class Muslim Arabs in Palestine, and especially in Jerusalem, up to 1947 showed the cousin's right in decline. There was no longer any question of a suitor having to obtain the consent of the girl's *ibn 'amm*. Only a vague sense of preference for *bint 'amm* marriage was still noticeable here and there, but even this was disappearing under the impact of the idea that cousin-marriage may result in sickly offspring.

The rural population, with its greater conservatism, evinced no such change. The persistence of the cousin's right among the Palestinian *fellahin* is reported by observers two generations apart.[36] In the village of Artas, south of Bethlehem, the cousin's right is verbalized in song and proverb. The songs often praise the *ibn 'amm* as the ideal husband. If, however, he does not marry his *bint 'amm*, but allows a stranger to take her away, he is blamed and called a "heap of dirt." The obligation of an outsider to compensate the *ibn 'amm* in money, in order to obtain his consent, is a living custom in Artas. Among the proverbs alluding to the cousin right are found such statements as "The *ibn 'amm* comes first," or "The *ibn 'amm* comes first in the eyes of the government and of the *fellahin*."[37]

In an account of marriage preliminaries in the villages around Jerusalem, the father of the groom discusses the bride-price with the father of the bride, and once this is settled the father of the bride says to him: "Now go and get the consent

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31 Canaan, 1931, p. 178; Musil, 1928, p. 137.
32 Canaan, 1931, p. 178.
33 Barghuthi, 1922, p. 28.
34 Jaussen, 1927, p. 62.
35 Baldensperger, 1900, p. 181; Ashkenazi, 1938, p. 63.
36 Klein, 1883, p. 84; Baldensperger, 1913, p. 121; Jaussen, 1927, p. 62; Granqvist, 1931, p. 72.
37 Granqvist, 1931, pp. 67-72.

of her paternal uncle and cousins *('ammha w'ulad 'ammha)*, buy clothes for her maternal uncle *(khālha)* . . . ." Thereupon the father of the groom goes to the paternal uncle of the bride *('amm)* and says to him: "How much do you want to let us get the girl?" The uncle thinks and then says: "I want twenty pieces of gold." Thereupon they discuss the amount until they settle on a sum. "The father of the groom can get the bride only if he has the consent of her *'amm* and his sons, and if he buys a robe for her *khāl* and shoes for his sons." After this the father of the groom "makes efforts to get the consent of the girl's paternal cousins, but he has much trouble with them until he [finally] obtains their consent. . . ."[38]

ARTAS CASE HISTORIES

We have seen above (p. 375f) a few examples showing the complications which may arise when a father wishes to prefer an outsider as a son-in-law in order to secure a larger bride-price than he would receive from his brother's son. This motivation of financial gain has caused conflicts between the father of a marriageable girl and his brother's son on several occasions in Artas, as reported by Miss Hilma Granqvist. Two of these are summarized here.

Muṣṭafa Salem of Artas found a bride in Bethlehem for his son. They celebrated the betrothal feast, and he gave the girl's father about £P100 including presents. A year and a half passed, and they were about to go to the sheykh to conclude the marriage contract, when the bride's cousin appeared saying: "I come first." The girl herself said: "I want to have my cousin; he comes first." When the bridegroom's father heard this, he threatened: "There are judges" (i.e. there are *fellahin* judges who will set the matter right). However, the betrothal was voided, and the bride's family had to compensate the groom's father for all he had spent on the girl.[39]

In another case in the same village a girl's parents wanted to give her to her mother's brother's son *(ibn khāl)*. But her father's brother's son *(ibn 'amm)* insisted on his rights, and finally got the girl.[40]

SYRIA

Moving up from Palestine northwards into Syria, we find the same cousin-right. Here too the girl's father's brother's son has the first right to her, followed by the right of more remote relatives in the male line.[41] And here too the right can be renounced by the *ibn 'amm* for a compensation paid to him by the suitor of the girl,

38 Littmann, 1902, pp. 32-33 (Arabic text) and 119-120 (German translation).
39 Granqvist, 1931, p. 72.
40 *Idem*, pp. 74-75.
41 Daghestani, 1932, p. 21.

who thus is a source of revenue for him.[42] In Syria the right of receiving a compensation belongs to the *ibn 'amm* alone, and not to the *ibn khāl*, who has no special rights in his *bint 'ammeh*.[43] The proverb which refers to the cousin-right and which, as we have seen above (p. 376) is current in Palestine, is also current in Syria in a somewhat different version: *"Inazzelha min 'ala ḍahr el-faras"* — "He (the *ibn 'amm*) can take her down from the back of the mare." Another proverb in the same sense is *"Yakhtefha min el-jalweh"* — "He can snatch her from the wedding ceremony."[44] Among the *fellahin* of the Hama, Homs, Aleppo, and Deir ez-Zor regions of Syria the *ibn 'amm* asserts his right by referring to the traditional saying: *"Bent 'ammi mā etla' men ṭarīkha"* — "She is my *bint 'amm;* I shall not move out of her way." Among the Syrian Bedouins they say: *"Bent 'ammi mā futha"* — "She is my *bint 'amm;* I shall not release her."[45]

In the entire Hawran district, as well as among the Syrian Bedouins, and especially the tribes of Slout, Beni Khaled, and el-Weld, the custom of reserving the bride for himself is practiced by the *ibn 'amm*. From the time a man reserves his *bint 'amm* for himself and until such time as he actually marries her, she becomes "protected" *(majyūra)* by him, and nobody else has the right to marry her.[46] But even if the *ibn 'amm* has not expressly reserved the girl for himself, he has to be consulted before the girl can be given in marriage to someone else. This custom is followed not only in the rural areas and the smaller towns such as Homs, Hama, Deir ez-Zor, but, occasionally at least, even in the big cities of Syria, Damascus and Aleppo.[47]

In the Syrian towns cousin-marriage seems to be most frequent among the lower classes consisting of workers, artisans, and small employees. Here too the proverbs faithfully reflect the views of the people with regard to the rights of the *ibn 'amm* and of the desirability of cousin-marriage. "A tree is found near me; who has more right to it, my neighbor or myself?" asks one of these proverbs. Also folk songs assert the rights of the *ibn 'amm:* "My *bint 'amm* is for me, is for me."[48]

As in Arab Palestine, in Syria too the urban environment is not favorable to the preservation of folk traditions. In recent decades, especially in the big cities, a man could give his daughter in marriage to a stranger even if the girl had several patrilateral parallel cousins who demanded her hand, and concurrently compensa-

42 Weulersse, 1946, p. 221.
43 Daghestani, 1932, p. 21.
44 *Idem*, pp. 21, 22.
45 Daghestani, 1932, p. 22; Musil, 1908, p. 174.
46 Daghestani, 1932, pp. 22-23; cf. above, p. 373.
47 *Idem*, pp. 21-22.
48 Chatila, 1934, p. 93.

tion of the *ibn 'amm* has also fallen into disuse.[49] This development seems to be characteristic especially of the middle class townspeople, among whom cousin-marriage has become much less frequent than among the lower classes. In the upper class, among the leading families, marriage between cousins is again frequent, and the *ibn 'amm* has the right of preference, here motivated by the wish to preserve the property in the family and by a feeling of superiority to other families. For these reasons, marriage between maternal cousins is less frequent in these classes than marriage between paternal cousins; and more stress is laid on marrying a girl to a cousin, than on finding an in-family match for a young man.[50] Actually, as late as the 1930's, there were still quite a number of leading families, especially in the small towns of Syria, among whom the old tradition of in-family marriage was faithfully preserved. In Homs and Hama, for instance, there were still certain families who would not give their daughters in marriage to an outsider, but insisted on their marrying members of the family itself. No such restrictions, however, existed with regard to their male members, who were free to find wives for themselves outside their own family circle. In this respect too the Syrian town closely resembled the Palestinian Arab town.[51] Recently, however, this rule has become weakened in many places. For instance, the rule of the K. family in Hama, according to which a K. girl was allowed to marry only a K. man, had been repeatedly infringed upon as early as the 1920's.[52]

This rule was not confined to families of high standing, but could be found also among some *fellah* families. The 'Abdallah family in Palmyra, e.g., and several other families in the Hawran and Deir ez-Zor regions adhered to it down to the 1930's. Also in the 'Atasi family husband and wife were almost always from the same family, and this was the typical situation as far as the great or leading families were concerned.[53]

SYRIAN TURCOMANS

The right of the *ibn 'amm* is upheld also among the Syrian Turcomans, among whom also the payment of compensation to the *ibn 'amm* has been practiced. A story concerning the rivalry between two paternal cousins for the hand of their *bint 'amm*, who was the most beautiful Turcoman girl in Syria, was often heard a number of years ago. Both youths demanded the girl from her father, Hajj 'Ali who, in order to suppress all rivalry between the two (since this would have weak-

49 Daghestani, 1932, pp. 21-22.
50 Chatila, 1934, pp. 91-94.
51 Bauer, 1903, p. 98; Jaussen, 1927, p. 66.
52 Daghestani, 1932, p. 18.
53 *Idem*, pp. 19, 173.

ened the family), refused her to both. However, knowing that two cousins had demanded her in marriage, nobody else dared to ask for the hand of the girl. She remained an old maid, and died unmarried.[54]

SYRIAN KURDS

The same customs are in force among the Syrian Kurds, both those of the Damascus area and those of Kurd Dagh. Among them, too, the *ibn 'amm* must be asked for his consent, if the girl is to marry somebody else, and has to be given compensation. The story is told of a certain 'Abdo, a Kurd of the village of Shikhut in the Kurd Dagh region, who had not received his *khul'a* (price of renunciation), and thereupon avenged himself by first killing the parents of his *bint 'amm* and later the girl herself. He was apprehended, condemned to death, and executed.[55]

The cousin-right does not exist among the Circassians in Syria. They hold marriages between a man and his *bint 'amm* or *bint khāl* absolutely forbidden, because these cousins are regarded by them as siblings.[56] The same type of family exogamy is practiced also among the Circassians in the Caucasus, the original home of the Syrian Circassians.[57]

IRAQ

In Iraq, as well as in northeastern Arabia,

> first cousin marriage is the invariable rule. A girl belongs of right to the son of her father's brother (*ibn 'am*) unless he expressly renounces his right to marry her. Even in this case she may not marry without his permission. If the girl breaks this rule or her parents prevail on her to marry someone else, her rightful lord will murder her if he can. This is the cause of most of the tribal killings of women, especially in Iraq.[58]

This custom is frequently reflected in Iraqi folk stories. In one of these, Harun al-Rashid's brother's son does not let Harun marry his daughter to anybody else, until finally Harun gives her to him in marriage.[59] In another story, a father from the country of Waq-waq does not want his daughter to marry her *ibn 'amm*, and therefore flees with her to Iraq. Later, however, the father returns with his daughter to Waq-waq land, whereupon the marriage feast of his daughter with his

54 *Idem*, p. 23.
55 *Idem*, p. 32.
56 *Idem*, pp. 20, 24, 173.
57 Castagné, 1929, p. 261.
58 Dickson, 1949, p. 140.
59 Meissner, 1906, pp. 74-75.

brother's son is begun. However, the girl's lover arrives in the last minute, kills the *ibn 'amm*, and then flees with the girl back to Iraq.[60]

Also in northern Iraq the *ibn 'amm* has the right to marry his *bint 'amm*. This is "the principal rule of marriage. . . . If they do not care for each other, however, the man will usually accept a present from the outside suitor, and in return will forego his right to his cousin."[61]

Among the Jews of Iraq, if a man wants to give his daughter in marriage to somebody, he must first persuade the girl's cousin to renounce his right to her. If the cousin does not listen to persuasion, the girl's father pays him a sum of money to buy his consent. This is done in order to prevent enmity and tension within the family.[62]

KURDISTAN

The same rule prevails in the Kurdish area of northern Iraq as well. It is tribal law among the Kurds that the cousin "has the first refusal of a lady's hand,"[62a] in other words it is he who can either take her for himself or dispose of her if he so wishes. In the sedentary Hamawand tribe (in the Kirkuk Liwa of Iraq) "paternal cousins have first rights to a girl, and where the father of the girl contemplates giving her in marriage to anyone else, the paternal cousin must first release her by renouncing his claim." In the southern Kurdish feudally organized territory, neighboring on the Hamawand territory, the "first rights of paternal cousins are not as strongly emphasized."[63] Barth, who made a special study of this problem among the Kurds, collected in the course of his field work cases of violence resulting from a breach of the father's obligation to obtain his brother's son's consent to the marriage of his daughter to somebody else. In one case, an outsider who asked for the hand of a girl was refused by her father on the grounds that (as he said) "I am afraid my brother's sons will kill me if I give her to you."[64]

One Kurdish case history should suffice to show that murder can actually result from the refusal to let a girl marry her *ibn 'amm* (or *amoaza* in Kurdish). In 1920 in a village called Kapanak Resh, on the eastern slope of the Qara Choq Dag in the Arbil region of Iraqi Kurdistan, under the protection of the village headman, named Khalbekr, lived his widowed sister, Amina Khanum, and her beautiful daughter, Fatima. In a village on the other side of the hill lived Fatima's cousins, Farhan the Lame and Rahman Agha. Farhan sent his brother several times to ask

60 *Idem*, pp. 48-49.
61 Glubb, 1935, p. 24.
62 Landau, 1953.
62a Hay, 1921, p. 45.
63 Barth, 1954, p. 167.
64 Barth, 1953, p. 26.

Khalbekr for the hand of his niece, but was each time refused. Finally, one of the three big Dizai chiefs, Hajji Pir Daoud Agha, secretly approached Khalbekr and offered him a large bride-price for his niece whom he asked in marriage for his son Ma'ruf. Khalbekr gave his consent and the preparations for the marriage started but with the utmost secrecy. So as to prevent the occurrence of any legal hitch, even the consent of the Muslim judge of Arbil was obtained. However, as was to be expected, these plans could not for long remain secret, and Rahman Agha planned revenge. One night Fatima was sleeping with her mother and her maid in a booth of branches just outside their house, when suddenly two men appeared and stabbed the girl and her maid to death, the mother narrowly escaping with her life. The bloody deed horrified the whole tribe, because the traditionally correct thing would have been to carry off the girl by force, or to kill her bridegroom. Since the girl herself had nothing to say in the matter of her marriage, to kill her was a crime by tribal standards. Rahman Agha was imprisoned, but no proof of his guilt could be found, and he was finally released.[65]

IRAN

In Persian Azerbaijan the same right is accorded to a man with regard to the hand of his *ämün gyzi*, father's brother's daughter. In an account of Azerbaijani marriage customs reported by an informant from Tabriz, the fourteen year-old boy says to his mother that he wants to marry, whereupon the mother answers: "Wait until your cousin *(ämün gyzi)* Aliye grows up, I shall take her for you as wife. . . . She is your property. . . ."[66]

Among the Papis of Iran, a Lur tribe, if a girl is married to a stranger, he has to compensate her cousins by giving each one of them a goat.[67]

SINAI AND EGYPT

The Sinai Peninsula forms the connecting link between the Asian and the African halves of the Middle East. Ethnologically, the nomads of the Peninsula are the connecting link between the peoples of the Arabian and Syrian Deserts on the one hand and the tribes of Egypt and North Africa on the other. Two first-hand reports a hundred and twenty years apart attest to the prevalence of the cousin's right in Sinai. John Lewis Burckhardt, traveling in the Sinai Peninsula prior to 1816, observed that

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65 Hay, 1921, pp. 71-72.
66 Ritter, 1921, p. 185 (Turcic text) and p. 198 (German translation).
67 Feilberg, 1952, p. 136.

The Arabs of Sinai . . . sometimes marry their daughters to strangers in the absence of the cousins. This happened to a guide whom I had taken from Suez. When we arrived at his encampment, one day's journey from the convent of Sinai, he expected to marry a cousin of his own, and during the whole journey he had extolled to me the festivities which I should witness on that occasion. He, too, had brought with him some new clothes for his intended bride; and was therefore exceedingly disappointed and chagrined on his arrival, when he learned that, three days before, the girl had been married to another. It appeared that her mother was secretly his enemy; and had contrived matters in such a manner, as to render him ridiculous in the eyes of his companions. He bore his misfortune, however, like a man; and, instead of evincing any signs of displeasure, soon turned the tide of ridicule upon the mother herself, and her son-in-law. To prevent similar occurrences, a cousin, if he be determined to marry his relation, pays down the price of her as a deposit into the hands of some respectable member of the encampment, and places the girl under the protection of four men belonging to his own tribe. In this case she cannot marry another without his permission, whether he be absent or present; and he may then marry her at his leisure, whenever he pleases. If, however, he himself break off the match, the money that had been deposited is paid into the hands of the girl's master. This kind of betrothing takes place sometimes long before the girl has attained the age of puberty.[68]

The nonchalant manner in which Burckhardt's guide reacted to the marriage of his cousin to another man, as well as the institutionalized method of preventing "similar occurrences" — which is different from the mere reservation of the girl practiced elsewhere (p. 373) — seem to indicate that no great emphasis was placed on cousin-right in those days. In the course of the subsequent century the attitude to the cousin's right must have become considerably more rigorous, since Murray in the 1930's reports that this right is generally respected among the Bedouins of Sinai as well as among the nomads of the desert stretching between the Nile and the Red Sea. Among the Egyptian Bedouin

every youth has the right to marry his *bint 'amm*. . . . The right is absolute, and if her father wishes to dispose of the girl otherwise, he must first obtain (and pay for) his nephew's consent. The vast majority of first marriages (every Bedouin marries several times) are of this nature, and consequently a high proportion of the population are the offspring of first cousins. So also an 'Abadi or Bishari usually marries his *bint 'amm*, but the Hadendowa are not so patrilineal and when choosing a bride give no special preference to that lady.[69]

As to the Bisharin, also C. G. Seligman reports that among those in the neighborhood of Aswan in Upper Egypt whom he studied, the *bint 'amm* "is the best

68 Burckhardt, 1830, pp. 154-155.
69 Murray, 1935, pp. 179-180.

[wife] and a man would consider that he had prior right to the hand of his *bint 'amm*."[70]

ANGLO-EGYPTIAN SUDAN

Moving south into the Anglo-Egyptian Sudan, we find that among the Kababish, a Sudan-Arab tribe, marriage with the *bint 'amm* predominates. The Seligmans found that

> it was clear that no other alliance for a girl would be considered if there were an *ibn 'amm* available for her. Further, if a lad were betrothed to his *bint 'amm* who was considerably younger than himself, he could not take another wife while waiting for her to grow up. A *bint 'amm* could not be second to any other woman unless she, too, were *bint 'amm* to the husband. This rule was demonstrated in the case of the sheykh of the Kababish himself: he married his *bint 'amm*, then later he married a second wife who was not his *bint 'amm*. Then he wanted to marry another *bint 'amm* of his, but before being able to do so he had first to divorce his second wife, so that he should have no wife preceding a *bint 'amm*.[71]

MOROCCO

Thanks to the researches of Westermarck, and of a number of French scholars, we have ample information as to the prevalence of *bint 'amm* marriage in that westernmost outpost of Middle Eastern culture. In Morocco, both among Arabs and Berbers, marriages between children of two brothers are not only common, but a man is held to have the right to marry his father's brother's daughter. In Andjra, Westermarck was told that the cousin has to be asked before a girl can be given away to another man, and that if this step is omitted, the cousin is entitled to prevent the marriage even on the very day of the wedding by forcibly removing her from the bridal box.[72]

Among the Uled Bu-'Aziz, a man who has contracted marriage with another man's *bint 'amm*, can be compelled to give her up, if he is compensated for his expenses, and if he has not yet settled down with her. In the Rif instances are known in which a man who has married his daughter to an outsider has been killed by his brother's son.[73]

CONCLUSION

As stated in the introductory remark, this paper dealt only with one single aspect of cousin-marriage: the right of the cousin to marry his *bint 'amm*. It was

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70 C. G. Seligman, 1915, p. 81.
71 C. G. and B. Z. Seligman, 1918, p. 131; B. Z. Seligman, 1923-25, pp. 269-270.
72 Westermarck, 1914, p. 53. Cf. the proverb recorded in Nablus, above, p. 376.
73 Westermarck, *loc. cit.*

found that this right is recognized in central, southern, and northern Arabia, in Jordan, Palestine, Syria, Iraq, Kurdistan, Iran, Sinai, Egypt, Anglo-Egyptian Sudan, and North Africa. It exists among the nomadic tribes, in the settled rural population, and, in a somewhat less pronounced manner, among the townspeople. It is observed by Muslims, Christians, and Jews.

A preliminary comparison of the distribution data of the cousin's right with the distribution data of preference for *bint 'amm* marriage (in a study of which the writer is presently engaged) shows that there are ethnic groups in considerable numbers within the limits of the Middle Eastern culture area[74] the marriage pattern of which includes a preference for *bint 'amm* marriage without, however, according to a man the right to marry his *bint 'amm*. The cousin's right to marry his *bint 'amm* does not and cannot exist without preference for *bint 'amm* marriage; while preference can and does exist without the right, having apparently a wider distribution. The fullest and most complete form of *bint 'amm* marriage appears to be the one in which a man has the right to marry his *bint 'amm*. On the other hand, the existence of the preference for cousin-marriage without this right can be taken as an indication of an incomplete, partial form of the institution of cousin-marriage. The incomplete variety of cousin-marriage (preference without the right) may be contingent upon one or more of the following factors and circumstances:

(a) It may be due to the fact that the geographical location of the ethnic group in question is marginal to the Middle Eastern culture area and that therefore the pattern of cousin-marriage does not exist in it in the fullest form it reached in the Middle Eastern core culture (example: the Timbuctoo area, or the Fulani in Nupe). This assumption is predicated on the known existence of cousin-marriage among the Biblical Hebrews and the pre-Islamic Arabs; on the known increase in incidence of cousin-marriage in Arabia after Muhammad; and on its incorporation into Muslim tradition which secured its acceptance by all (or nearly all) Islamized peoples. It also implies that the cousin's right was a later development in the Middle Eastern core culture, and that therefore it has not yet reached marginally located ethnic groups which have already absorbed the earlier form of Middle Eastern preference for cousin-marriage.

(b) Ethnic groups located geographically well within the central sector of the Middle Eastern culture area may nevertheless occupy a position of cultural marginality. Such a group may be influenced by the older and less stringent prefer-

74 As defined in Patai, 1952.

ence for cousin-marriage and may have subsequently resisted, or remained unaffected by, the later specific and strict Middle Eastern formulation of the cousin's right (example: the Copts in Egypt).

(c) As a result of modernization and Westernization, a distance may develop between the actual culture of a sector of the population in a locality and the traditional culture of the ethnic group of which the local aggregate is a part. In such cases, which can be observed, e.g., in the middle class population of many Middle Eastern cities, the most stringent feature of the traditional cousin-marriage complex, namely the man's right to marry his *bint 'amm*, may be discarded because it is felt that it contravenes Western ideas which are being consciously absorbed. The preference for cousin-marriage may, at the same time, persist, insofar as both parties, now allowed their free choice of marriage partners, may still feel that cousin-marriage has, after all, some of those advantages which tradition ascribes to it. In this transitional stage, the frequency of cousin-marriage may still testify to a continued preference for it, while the cousin's right may be ridiculed as obsolete.

(d) An external circumstance must also be taken into consideration. This is the specific nature of the sources from which the data concerning the Middle Eastern marriage pattern (and Middle Eastern culture as a whole) are derived. As a glance at the list of references appended to this paper will show, work in Middle Eastern anthropology on an overall area basis, and especially attempts at distribution studies, have to rely to a considerable extent on accounts of travellers, officials, residents, and other non-anthropologists. These writings, while often containing invaluable first-hand observations, equally often fall short as far as detail and completeness are concerned. The absence of any reference to the cousin's right in a given ethnic group may therefore mean not only that the cousin's right did actually not exist, but also that the author of the account failed to notice it or was not even aware of its possible existence. At least part of the distributional discrepancy between the cousin's right and the preference for cousin-marriage is probably due to this circumstance.

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THE ECONOMIC BASE OF WOLOF POLYGYNY[1]

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PLURAL MARRIAGES are one particular aspect of West African societies which Europeans have attempted to change in favor of monogamy, often without an appreciation of the functional role of the institution in these cultures. This study analyzes the important economic role that polygyny plays in the life of the Wolof. Perhaps the missionaries, in particular, would not have tampered with this institution if they had understood the heavy burden of work monogamous unions place on the women. Certainly, if Wolof polygyny is typical, the West Africans' steadfast resistance to change this aspect of his way of life is chiefly due to its vital role in the economy. Wolof men and women alike are sharply aware of the economic advantages of plural marriage, and these, in turn, have an important bearing on problems of marital adjustment. But before the economic and other stated reasons for polygyny and concomitant problems of adjustment are discussed, let us consider in some detail the year-round work activities of married women and the learning experiences of young girls in Wolof society.

Plural marriages are sufficiently numerous in Wolof society to play an important role in the essential work of raising children and producing adequate food, clothing, and shelter. In the Wolof village of Njau, the 28 adult men had, on the average, 1.36 wives; the distribution being as follows:

Number of wives	0	1	2	3	4	5
Number of cases	3	17	5	2	–	1

However, of these 28 men, 17 belong to the slave descent class which probably accounts for the relatively low number of wives per man. Out of a sample of

1 This material was collected between October 1950 and August 1951 by myself and my wife while making a broad ethnographic study of the Wolof people in the Saloum districts of the Gambia and neighboring Senegalese villages. Our time was divided almost equally between two study centers: the village of Njau in Upper Saloum and Ballangar in Lower Saloum.

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56 adult men made in Ballangar, including members of all classes,[2] there was an average of 1.95 wives per man:

Number of wives	0	1	2	3	4	5
Number of cases	1	25	16	6	6	2

This sample was slightly weighted on the side of the compound heads and members of the freeborn class. Taking the samples from Njau and Ballangar together the average number of wives per man is 1.75 with the following distribution:

Number of wives	0	1	2	3	4	5
Number of cases	4	42	21	8	6	3

As in most nonliterate groups, Wolof children, especially girls, learn adult patterns of work at an early age. The girls learn from their mothers by observation and imitation. Little girls, four to six years old, too young to do any of the household tasks, "play house" like little girls in literate societies. Their "houses" are dirt walls without roofs, large enough to sit in, and furnished with bed and water jar also made of dirt. Each "wife" builds her dirt house next to that of her "co-wife," as in the compounds of their parents. Thus, they also learn early that polygyny is a "right" way to live. These "wives" busy themselves with "cooking" sand in tin cans or clay pots and caring for their dolls, which are ingeniously made, and have elaborate coiffures, jewelry, amulets and several changes of clothing.

Through their play, girls rehearse for adult life in many ways. One group enacted a complete wedding ceremony, lasting four days like a real ceremony, with the assistance of the adults and some of the boys in the village. They also have their own work society, as young women do, with an adult woman as their leader.[3]

The girls are uniformly eager to learn adult tasks. At the age of six they learn a few light household tasks such as sweeping out the house and the compound yard, and lighting fires in the house by bringing hot coals in from the kitchen. Girls, about eight years old, who are scarcely able to lift a heavy pestle, are seen pounding millet and guinea corn for short periods of time. The following description of the daily activities of a girl, obtained from an informant about nine years old, is typical for her age group:

2 Wolof society is divided into a hierarchy of endogamous social classes. From high to low they are the freeborn *(jambor)*; descendants of slaves of the above *(jam)*; blacksmiths and leather workers *(tega* and *ude)*; the descendants of slaves of the above *(jam i tega* and *jam i ude)*; praisers, musicians, and jesters *(gewel)*; and finally the descendants of slaves of the above *(jam i gewel)*.

3 D. W. Ames, "Wolof Cooperative Work Groups" (in *Backgrounds of Modern Africa*, W. R. Bascom and M. J. Herskovits, eds., ms.).

She stays in the compound while her mother is working in the rice field. Her mother has no co-wives. This day she was going to shell peanuts, pound rice, and make a fire for the evening meal. Late in the afternoon her mother will come and finish the evening meal. Every other day she cooks the evening meal made of guinea corn and millet, but on the days when they have rice her mother cooks the meal. Early each morning she sweeps the house of her mother and the house of her father. She helps prepare all the meals. When her mother is washing clothes or busy doing something else she prepares lunch. She washes the cooking pots and eating bowls. When her mother is away she takes care of her little brother, who is five years old, seeing to it that he does not get into any mischief and feeding him when he gets hungry. When her brother was a baby she carried him on her back when her mother was busy. She also whips him as her mother does, when he does something wrong. She plays with her doll. Of all the things she does she likes to pound grain the best.

By the time a girl is about twelve years old she can do all the kinds of work an adult woman can do, although the quantity and quality is inferior. She cooks, draws water, washes clothes, and works in the rice fields with her mother or cultivates a small peanut field for herself. When a young woman goes to her husband and the wedding festivities are completed, she takes over the tasks of a married woman, as outlined in Table 1.

In a plural marriage the wives rotate the cooking in the order of their seniority in the compound. Each, in her turn, is responsible for preparing and cooking three meals — the midday meal, the evening meal, and the morning meal the following day — except during the rains when the food reserves are low and not so many meals are eaten.

The record (Table 2) for a ten-day period of the activities of two women, wives of a middle-aged compound head, illustrates this principle of rotation and the year-round daily tasks of Wolof women, which are, in the main, pounding grain, drawing water, and collecting firewood. This schedule was recorded after the women had harvested their rice, and thus had less work to do, although during this period they winnowed peanuts for their husband. Wife A had two boys, four and seven years old, and a baby who was eight months old. Wife B had a child about two and one-half years old. The care of the babies (washing, feeding etc.) is not included in the table.

It is during the agricultural work season that the women's burden of work is the heaviest, because it is then that they have to till their own fields and gardens and help their husbands in the field in addition to their normal daily tasks.[4] In Lower Saloum the main farm work of the Wolof women is the cultivation of rice.

4 Women shell peanuts for planting and, with the children, help plant guinea corn, millet, and peanuts. They take food to the men working in the fields and winnow the peanuts for their husbands during the harvest time (see Table 1).

TABLE 1

Year-round daily tasks

Pounding grain	Drawing water	Gathering firewood	Care of children
Preparing and cooking meals	Washing clothes	Cleaning compound	Care of goats

SEASONAL TASKS*

Late October	November	December	January	Early February
LEBI†			NOR‡	
Quick rice harvested Peanuts dug	Own peanuts dug Own and husband's peanuts piled to dry Vegetable garden weeded Pottery made (gewel women only)	Own peanuts thrashed Own and husband's peanuts winnowed Vegetable garden weeded Pottery made (gewel women only)	Late rice harvested Garden produce gathered Pottery made (gewel women only)	Late rice harvested Garden produce gathered Cotton picked Pottery made (gewel women only)

* Thanks are due to David P. Gamble for checking this chart against his own wide experience among the Wolof and other ethnic groups in the Gambia.

† The Wolof term for the harvest season.

‡ Winter, the hot dry season.

TABLE 1 (cont'd)

SEASONAL TASKS

Late February	March	April	May
COOL			
Late rice harvested Cloth dyed Cotton spun into thread Pottery made (*gewel* women only)	Rice polished to sell Cloth dyed Cotton spun into thread Pottery made (*gewel* women only)	Cloth dyed Cotton spun into thread Pottery made (*gewel* women only)	Dry rice fields ploughed* Cloth dyed Cotton spun into thread Pottery made (*gewel* women only)

June	July	August	September	Early October
HARVEST†				
Dry rice field ploughed Swamp rice fields ploughed Peanuts for own‡ and husband's fields shelled and planted Help husband plant guinea corn, millet and corn Wild fruit and leaves collected	Early rice planted Swamp rice fields ploughed and planted Wild fruit and leaves collected	Early rice transplanted Swamp rice fields ploughed and replanted	Young rice thinned and replanted	Young rice thinned and replanted

* Quick growing rice is planted in the dry rice fields. The women work in these fields only two days a week, Wednesday and Friday, the days it is taboo to work in the swamp (see footnote 7).

† Rainy season.

‡ Women's peanut fields are usually very small, producing about one donkey load of nuts (two bags).

In Upper Saloum, rice cultivation has been introduced only recently but it has become increasingly important there too. Gamble found sixty-four percent of the women of the village of Njau growing rice in 1948.[5] Many women till small peanut fields, only or in addition to their rice fields. The Wolof women in Senegal, away from the riverine swamps, grow peanuts exclusively.

Both types of cultivation require a great deal of time and energy; however, this is especially true of rice cultivation.[6] The women of Ballangar go to the rice fields every day in the week except Wednesday and Friday.[7] They walk several miles to their rice fields by the river's edge; they have to wade through water which is sometimes up to their necks; the sun is hot; their backs ache; and the tsetse fly is particularly bad at this time of the year. Nevertheless, the women make their work easier by singing, joking, shouting to each other from field to field, eating as a group, chatting and playing work-games — for example, throwing a hoe into the air, clapping their hands, and catching it again on the way down.

A chief motive for working in the rice and peanut fields is a considerable measure of economic independence which the women can achieve. When the crop is harvested, it belongs to them and they can dispose of it as they please, although they usually give their husband one-tenth of the yield *(xassaka)*. Ordinarily the women use the money from the sale of their peanuts, some of their rice, garden vegetable, and goats or chickens to buy commodities — especially clothing — that most husbands cannot buy for them in sufficient quantity. In fact, many husbands cannot satisfy their wives' material wants: this is a major cause of divorce.

Some women accumulate considerable wealth by investing in livestock and hiring laborers to cultivate peanut fields. These women help their husbands with handsome gifts and provide their children with every advantage. A few women have cattle, and these too they may dispose of as they see fit. It seems not unusual for the husband of such a woman to beg her to sell some of her cattle so that he may get another wife; and in one of the cases observed, the wife refused. In times of need, as when the compound granaries are empty, men sometimes ask their wives for economic assistance. If a wife agrees, she may have to sell valued possessions such as her jewelry and homespun cloths, unless she is an unusually wealthy woman.

The women store up most of their rice for the time when it is their turn to cook.

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5 D. P. Gamble, *Contributions to a Socio-Economic Survey of the Gambia* (London, 1949), p. 132.

6 See Table 1 for time expended.

7 They explain that jinn do not like women to work in rice fields on Wednesday and Friday. Once while a girl was working in her field upon a Friday, a jinn came up and told her that he did not like it. The girl returned to the village, told the people what had happened, and dropped dead shortly afterwards.

They prefer rice because it does not require as arduous pounding as do guinea corn and millet. In Njau, except in the compound of the chief, the supply of rice was exhausted early in April since the production of rice is still relatively small there. In Ballangar, most of the women were still feeding their families rice until June, and some had enough for the whole year. Most women who stop cooking rice for their families after the five-month period from harvest until June have a reserve which they use for their own meals while they are working in their rice fields during the Summer and Fall when they do not have time to pound the grain supplied by their husbands. A reserve is also kept to serve visitors, to use as seed, and to sell when money is needed. The contribution of the women to the family food supply is a considerable one and is especially important in the Ballangar area where the men produce little food because the soil is exhausted. Here the rice grown by the women in the swamps is a major source of food. In addition, as in Njau, the men now devote much of their energy to the production of the principal cash-crop, peanuts. The men generally recognize their dependence on the women for supplemental food supplies, as can be seen in the saying that "A man who has many wives will have plenty of rice to eat."

The great majority of the Wolof women do more work the year around than the men; even little girls have more tasks to perform than little boys. An old woman said, of men in general, "They do not help at all; they just sit and eat." The work of the men is more seasonal than that of the women. From the latter part of June to January the men work steadily in their fields, but from January to the next planting season they have little work to do, though some of the males of slave descent, who are the weavers, and the blacksmiths practice their professions during this period. As we have seen (Table 1), the women have routine daily tasks which demand much of their time and energy.

The women, of course, know that they have a heavier work-load than the men, and grumble about it from time to time. They complain about the arduous nature of their tasks, such as pounding grain, cooking, drawing water from deep wells and carrying it to their compounds, and collecting firewood. We estimated that a woman typically pounds, sifts, and re-pounds grain for three hours on the day that it is her responsibility to cook. Women frequently get up long before dawn to commence pounding grain for the meals of the day. Drawing water also takes time and is toilsome. Women often have to wait their turn at the well, and it takes much time to draw with small leaky pails, from deep wells, enough water to fill the tubs used to carry water back to the compounds. Moreover, as the women point out, from May to January, they usually help the men by shelling peanuts for seed, planting peanuts and the staple food crops, piling the peanuts into small piles in

the fields and winnowing them; while at the same time, they must tend their own rice fields, where they hoe, plant, hoe again, re-plant, weed constantly, and, finally, harvest. Nevertheless, there are religious and economic incentives for the women to be hard-working and obedient to their husbands, and most of the women accept their burdens without too much complaint. The husbands of such women will pray for them, and it is said that the wives will thereby receive blessings on this earth and the assurance of going to heaven. Since women are excluded from the mosque and most Mohammedan religious activities, they must conform if they wish to attain these goals.

Also, by hard work a woman attains favor for herself and her children from her husband, and work competition between co-wives is not uncommon. Hard work is part of the general Wolof ideal of good behavior — hard work, piety, and respect for one's elders. There is a Wolof proverb, "Dust on the feet is better than dust on the buttocks" *(pondəp tanka mo gɛn pondəp tat)*.

In a society where so much and such varied work is assigned to women, the advantages for them of plural marriage, though not so obvious as for the men, appear to outweigh the disadvantages. Most women recognize the practical value of having help and coöperation in arduous and time-consuming household duties such as the preparation of food and the drawing of water. Friendly spouses who had time to spare were observed helping another wife whose turn it was to cook, by pounding grain, peeling peanuts, or other work. A co-wife can take over duties when one is ill or temporarily incapacitated after childbirth — especially seven days later, at the naming ceremony, when food must be prepared for the guests and the mother is not permitted to leave her house to do the work. Co-wives are an advantage for a wife who wishes to leave the village for several weeks to visit friends or relatives. It is commonly recognized that women in plural marriages have greater freedom of action because they are not perpetually tied down by their work.

Because of the pressure of work, women have an ambivalent attitude toward the acquisition of additional wives by a husband. On the one hand, they can use help with their arduous tasks; on the other, they are reluctant to share the affection and wealth of the husband. It is generally recognized that the more wives there are living together, the more friction there will be. A Wolof saying goes: "One wife, one quarrel; two wives, two quarrels; three wives, three quarrels." The majority of the single wives felt that their work was too burdensome — saying that they were tired of drawing water and pounding grain so much of the time — reluctantly admitted that another wife would be acceptable and even desirable, but they consistently insisted that it was only because of the work that another wife would be

tolerated. Less ambivalence was noted among women who did not find their work too burdensome; these were wholeheartedly against having another co-wife, either because they already had sufficient co-wives and collateral relatives to help them, or because, as individuals, they were especially well prepared, psychologically, to prefer work to having competitors in their households.

However, though in the minority, co-wives not infrequently build up strong ties of affection for each other over a period of time. Observation substantiates the statement that there are households where the wives live together "like sisters," lending each other cooking utensils, produce from their gardens, and even clothes or jewelry for a special occasion. Whether the wives are friendly or not, they try to get along reasonably well together if they wish to have help in their daily tasks. It appears that dependence on the labor of others is paradoxically a primary source of friction and a major incentive to adjustment in plural marriage.

The labor of women is of double or triple value to the husband — as we have seen, for supplementary food supplies, emergency loans, and routine domestic tasks — to say nothing of the value of wives as a source of wealth in form of children.

Of all the economic advantages given for desiring additional wives, men continually stressed the advantage of having more children. Children, especially boys, are looked on as insurance for the future; as one old man put it, "Children are wealth." Many children and many wives make it certain that there will be plenty of food, of which the surplus can be sold for cash or bartered for goods. Young men work on family land administered by the compound head, and, if pious, give their fathers tithes. Thus large families assure a man an old age with nothing to do but eat, chew kola nuts, sleep, pray, receive visitors, give advice to the younger members of the community, and help in the administration of village affairs. When an old man learned that Europeans do not pay bride wealth for their wives, he made this illuminating comment: "That is good; you have a chance to have many wives. If the Wolof did not have to pay for their wives they would have large compounds full of wives and would be very rich with so many people to work for them."

The desire for children is evidenced in many ways. Most married women wear amulets and take other magical measures to insure that they will have many children. Throughout the ceremonies performed when the bride goes to her husband's compound, the theme of fertility is the dominant one. The prayers for the bride and groom always include the wish for many children; and the village spirit living in a tree in the center of the village, and another spirit living in the well, are propitiated in the course of the ceremony to insure, among other things, that the bride

will have many children. Also, the husband who wants a son, and the bride, who desires a daughter, compete through ritual magic to determine the sex of their first-born child. Men are said to be partial to males because they aid in the farm work and support their fathers in old age, whereas the women are said to be partial to the birth of a female child because she will help her mother with work even when very young. Several female informants said that they preferred to have a daughter to help them with their work rather to have their husbands marry again. This, of course, is another example of the general antipathy towards having additional co-wives.

There are other supports of polygyny, less frequently mentioned, but nevertheless important — especially the force of tradition: "I met my father and my grandfather doing it and it went well with them, so I do it as well." Plural marriage is also proper Mohammedan practice, and one often hears "Mohammed had four wives, so we are allowed to have four wives." Another motive is prestige, though men's comments revealing this were forthcoming only if solicited. To have many wives or cattle, fine clothes, well-filled granaries, and fine house-furnishings are all indices of wealth which give an individual some measure of prestige, but proper Mohammedans are not overtly, at least, so impressed by worldly goods as by religious piety.

In summary, in explaining why plural marriage is necessary or advantageous, Wolof men and women reveal chiefly that it is effective in organizing economic activity, and that spouses have considerable economic incentive to make their marriages continue. Since polygyny plays a vital role in economic life and has important religious and social sanctions, it is unlikely that it will be supplanted by another type of marriage in Wolof society for some time to come. In spite of the numerous domestic tensions, and the changes introduced by contact with European culture, no socio-economic change has yet seriously disturbed the deep-seated conservatism of the members of Wolof society, especially of the men, in regard to this social institution.

TABLE 2

Ten-day Activities of Co-wives

	WIFE A	WIFE B
Jan. 1	Rose before sunrise. Pounded until cock crow. Ate breakfast prepared by Wife B. Washed and winnowed grain. Drew water at well. Watered tomatoes in her garden. Prepared food for midday meal. Ate shortly after noon. Washed clothes at well. Gathered firewood in bush. Prepared evening meal. Chatted and peeled sorrel until bedtime.	Rose before sunrise. Warmed self over fire. Prayed. Prepared and ate morning meal. Went to well for water. Took her goats out to graze. Pounded and winnowed rice for next day. Ate lunch at about the two o'clock prayer. Chatted and shelled peanuts. Pounded, washed, and winnowed grain for the next day until after the five o'clock prayers. Chatted, ate evening meal, and went to bed about 8:30 P.M.
Jan. 2	Rose at daybreak. Prayed. Visited sister in a neighboring village and returned before noon. After noon meal pounded the grain for next day's meals, then pounded rice. Went to well for water. Helped Wife B prepare evening meal by pounding more grain.* Ate evening meal. Chatted and washed grain for next day's meals. To bed by 9:30 P.M.	Rose after sunrise. Prepared morning meal. Bathed. Ate morning meal. Went to well and washed clothes for husband, mother-in-law, and self until the two o'clock prayer. Ate noon meal. Went to bush to collect firewood. Gathered up washing which was laid out to dry. Swept house and lit fire in house. Ate evening meal. Chatted until bed at 9:25.†
Jan. 3	Rose when still dark. Pounded grain for noon meal. Drew water at well. Prepared lunch which was eaten at about the two o'clock prayer. Went to bush for firewood and returned just before the sunset prayers. Chatted for short time, then pounded rice and cooked it for evening meal. Chatted until bed at 9:00.	Rose after sunrise. Prepared morning meal. Bathed. Ate morning meal. Went to well and washed clothes for husband, mother-in-law, and self until the two o'clock prayers. Ate noon meal. Went to bush to collect firewood. Gathered up washing which was laid out to dry. Swept house and lit fire in house. Ate evening meal. Chatted until bed at 9:15.

* Pounding hereafter includes also the process of winnowing, washing, and sifting the grain.

† Exact time for meals and bedtime are cited only when I was present and could check it for myself.

TABLE 2 (cont'd)

Ten-day Activities of Co-wives

	WIFE A	WIFE B
Jan. 4	Rose at daybreak. Prepared morning meal (it was not her turn but Wife B had not pounded grain the day before "as she should"). Gathered sorrel in garden. Bought milk. Bathed. Ate lunch shortly before the two o'clock prayers. Drew water. Went to bush for bark to make medicine for her sick baby. Returned and visited friend until evening meal. After evening meal pounded for next day's meals.	Rose after sunrise. Prayed and greeted her husband. Warmed self by fire. Bought bread and ate morning meal. Bought some kola nuts at store. Thrashed and winnowed peanuts in own field until the two o'clock prayers. Prepared and ate lunch. Rested. Collected firewood in bush, returned before the sunset prayers. Too tired to cook evening meal, so bought bread and had meal of bread and milk.
Jan. 5	Rose when still dark and pounded for today's meals. Went to neighboring village. Returned before noon, swept house, and cooked noon meal. Ate at about the two o'clock prayer. Took meal to husband in peanut field. Drew water. Bought milk from a Fula friend. Prepared evening meal until the sunset prayer. Ate and chatted until bed.	Rose after sunrise. Warmed self, prayed, and greeted husband. Ate morning meal. Milked goats and took them to bush on way to peanut field of neighbor's son where she helped him winnow his nuts. Came back at noon and rested until lunch at about the two o'clock prayer. Helped Wife A pound rice for evening meal. Went to well and returned by the sunset prayer. Brought in goats from pasture. Ate evening meal and chatted until bed around 9:30.
Jan. 6	Rose when sun was up, prayed and greeted husband. Went to husband's field to gather loose peanuts until midmorning. Went to hair dresser until just before the two o'clock prayer. Noon meal just after the two o'clock prayer. Rested until the five o'clock prayer. Pounded rice for next day. Rested. Ate evening meal and chatted until bed.	Rose at sunrise. Prayed. Warmed water and mixed with pounded grain for morning meal. Ate. Bought milk from a Fula friend. Pounded and cooked rice for noon meal. Took food to husband in his field, ate with him. Returned to compound and went back to field with water for husband. Drew water at well. Cooked evening meal, ate at 8:00. Rested and went to bed.

TABLE 2 (cont'd)

Ten-day Activities of Co-wives

	WIFE A	WIFE B
Jan. 7	Rose after sunrise. Prayed and greeted husband. Purchased milk for morning meal. Ate. Drew water. Pounded grain. Bathed. Pounded grain again. Went to hair dresser. Meal at noon time. Rested until the two o'clock prayer, then pounded for evening meal. Ate. Pounded grain again until bedtime to prepare enough food to take as gift to naming ceremony the next day.	Rose after sunrise. Prayed and warmed self over fire. Prepared morning meal. Swept house. Winnowed peanuts in own field. Drew water. Ate lunch. Shelled peanuts. Pounded grain for next day's meal. Rested until evening meal. Chatted and shelled peanuts until bed.
Jan. 8	Rose before sunrise, prayed and greeted husband. Roasted peanuts. Prepared morning meal. Bought kola nuts for husband. Went to naming ceremony. Winnowed ground nuts in husband's field until after the two o'clock prayer. Pounded for tomorrow's meals. Drew water. Pounded until the sunset prayer. Ate evening meal.	Rose before daybreak and pounded until it was light. No breakfast. Roasted peanuts and prepared noon meal. Ate before the two 'oclock prayer. Rested until midafternoon and then went to collect firewood until after the five o'clock prayer. Drew water. Prepared evening meal until the sunset prayer. Ate.
Jan. 9	Rose before daybreak and pounded until sunrise. Prayed and greeted husband. Prepared morning meal. Roasted peanuts and prepared grain for noon meal. Took meal to husband in field and ate with him. Returned and drew water. Prepared evening meal. Collected firewood. Ate, and chatted until bed.	Rose after sunrise. Prayed and greeted husband. Prepared morning meal. Winnowed peanuts for husband in his field, ate noon meal there and returned to compound at the five o'clock prayer. Shelled peanuts and pounded grain for tomorrow's meals. Drew water. Pounded again. Rested. Evening meal at 8:00. To bed early.
Jan. 10	Rose at sunrise. Prayed and greeted husband. Prepared breakfast. Drew water. Went to husband's field to winnow peanuts. Returned home at the five o'clock prayer. Drew water. Went to bush with young sons to collect firewood. Rested. Ate evening meal and chatted until bed.	Rose when still dark and pounded until sunrise. Prayed and greeted husband. Swept house. Lit fire and cooked lunch. Took lunch to husband in field and ate there. Stayed at field and winnowed for husband until the five o'clock prayer. Cooked supper. Ate. Chatted until bedtime.

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THE PUEBLO KACHINA CULT: A HISTORICAL RECONSTRUCTION[1]

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LONG AGO Hermann Haeberlin wrote, in referring to the conceptual aspects of the Pueblo kachina cult, "From the ideas we find associated with this worship today, we cannot, of course, draw any inferences whatsoever as to its probable origin or its historical development." The investigation of these problems, therefore, and of the "phenomena of assimilation and reinterpretation which have doubtlessly taken place, as well as the discrimination of primary and secondary elements necessarily fall outside of the scope of our considerations."[2] If we were to accept this position as applying to all aspects of the kachina cult, which would imply that historical reconstruction from modern data is impossible or invalid, the only sources of historical information would then be archaeological remains and documentary materials. For the kachina cult these sources are very poor. Archaeology does not even provide us with absolutely certain evidence of the existence of a pre-Conquest kachina cult, and the documentary material gives us essentially only a static description of parts of it at one point in time, the mid-seventeenth century.

Fortunately, however, it is not necessary to take the extreme position, which indeed Haeberlin himself did not occupy. Distributional data are available, and many clues to history may be found therein. Their implications, moreover, may be checked by other tools of the "inferential method," such as the associations of cultural traits and complexes, and linguistic data. By these means something of the history of the kachina cult may be inferred, at least in its broad outlines. This is all that will be attempted, and even the inferences here drawn are not advanced with any claim to certainty. I believe, however, that they follow from the facts as they are known today.

There is much variability in the kachina cult from town to town, but its under-

1 This paper presents the conclusions of a survey of published and unpublished materials on the kachina cult. The complete study was submitted as a doctoral dissertation to the faculty of the University of New Mexico, in 1951. The writer expresses his great indebtedness to Drs Leslie Spier, Florence Hawley Ellis, W. W. Hill, Stanley Newman, France V. Scholes for their assistance and encouragement in many ways.

Since the possibility of its publication in full seems remote, the manuscript (Anderson, nd) must be cited as the source for full documentation of some of the statements made herein.

2 Haeberlin, 1916, pp. 28, 31.

lying features are very generally distributed. It is most complex in the western Pueblos (Hopi, Zuñi, Western Keres), becoming simpler to the eastward. Among the Tiwa (Isleta, Taos) it all but disappears, since there is here little objective observance of the cult, and only the rudimentary conceptual background. Omitting the Tiwa as definitely marginal, the general character of the cult may be outlined as follows. The beliefs concerning the kachinas are everywhere much the same. They are benevolent, anthropomorphic beings, living in mountains, springs, or lakes, and bringers of various blessings, particularly rain and crops. Offerings are made to them, corn meal (and other food) and prayer-sticks or prayer-feathers being most important. Even masks are "fed" and treated reverently. Everywhere the kachinas have a special association with "spruce" (Douglas fir), which is used in many ways in kachina dances and ceremonies. The definition of these spirits is everywhere difficult due to their confusion in varying degree with other supernaturals, particularly the Cloud spirits and the Chiefs of the Directions. Though generally benevolent, the kachinas can also be dangerous if not properly treated, and some of them are always dangerous, as disease-bringers or cannibals. Some are severe disciplinarians, of children and adults. Masks also may be dangerous, in keeping with the fact that the mask is the most important part of the costume, transforming its wearer into the real kachina, who today thus visits the pueblos. Aside from the masks, dance costume presents few variations from town to town, and this is true also of group dance steps and figures, the behavior of the individualized "side dancers," the characteristic calls of the kachinas (who do not speak, as a rule), and music. In general only men participate in kachina observances, and everywhere clowns are much in evidence in connection with them. An association of the kachinas with the human dead is common, but apparently not universal. Their origin is accounted for in various ways. Kachina mythology in general is best developed in the west, as are also kachina ceremonies, masks, and dolls. With regard to organization, the most striking feature is the extent to which it is integrated with the general socio-ceremonial structure of each town, so that the cult is served by a wide variety of types of associations — clan, moiety, kiva group, or medicine society. Everywhere, however, participation in the kachina cult is a minimum religious requirement for men, and it involves an initiation which follows essentially the same pattern in all towns.[3]

As Hawley has pointed out,[4] the age of the cult is difficult to determine, since direct evidence is so scanty. The best archaeological data seem to indicate the

3 For fuller descriptive material on the kachina cult as a whole, the reader is referred to Parsons, 1939, *passim*, and the works cited therein.

4 Hawley, 1937, p. 644.

existence of masks like those of today as early as the Salado occupation of the Gila area, perhaps in the fourteenth century,[5] and since masks seem the most characteristic material concomitant of the kachina cult, the cult may also have existed then, and perhaps much earlier. This bit of evidence receives added significance from the fact that the existence of the cult in the same area and at the same time is suggested by the rather clearly Pueblo-linked elements of the Pima-Papago mask complex,[6] hardly to be interpreted as derived through the Apache.

From Luxán's account of the Espejo expedition,[7] we may infer the presence of a well-established kachina cult on the Rio Grande in the late sixteenth century, and its flourishing condition in the middle of the seventeenth century argues for some antiquity (see below). Bandelier[8] believed the "cachinas" to be aboriginal, even arguing that, though unobserved or unreported, they were performed by the Zuñi when Coronado was there. But Bandelier's interpretation of the term "cachina" was not that of today. He says,

> The origin of the word is found in the Tehua language, where "Ka-tzin-a" signifies the spirits of the fetiches of game. To dance a Katzina was therefore to perform some animal dance with the object of performing an incantation, either for purposes of the hunt, or for war, or some other work of public utility. The deer dance, . . . the dance of the mountain sheep, the much discredited snake dance, in fact, all animal dances, are the original Cachinas. But the name was very soon extended to all idolatrous dances in general,

including even the scalp dance.[9] This understanding of the word may very well reflect that of the Spaniards of the seventeenth century, and if so, we are again somewhat in the dark as to the true extent of the modern form of the kachina cult at that time. That it existed seems certain, however.

The linguistic evidence, such as it is, seems either noncommittal on the point of age or seems to imply relative recency, but this need not be construed as necessarily indicating origin in the immediate past. That the cult in its full development may well be very recent is indicated, however, by other evidence. For example, Herzog says,[10]

> The fact that neither the corn-grinding songs, nor their Pima parallels show anything comparable to the split into a double stanza so characteristic of kachina songs . . . may strengthen the view that the exuberance of the kachina development among the Pueblos is a comparatively recent matter.

5 Haury, 1945, pp. 198-200.
6 Parsons, 1939, pp. 1000-1004.
7 Hammond and Rey, 1929, p. 79.
8 Bandelier, 1893, p. 195.
9 Bandelier, 1890-92, pp. 151-152, 153.
10 Herzog, 1936, p. 320.

Other indications are found in the known cases of the invention of new kachinas, their borrowing, and the multiplication of dances and their repetition.

That the cult in its beginnings was very much simpler than that of today is therefore obvious, and something at least may be said as to its probable "original" form. Everyone seems agreed, regardless of their theories as to the origin of later developments, that there has long existed in the Southwest and Mexico a set of beliefs and practices which preceded the specific development of the Pueblo kachina cult — and other similar cults elsewhere — and which prepared the way for the acceptance and flowering of that cult. Bunzel, for example, accepts Parsons' suggestion that it received impetus from contact with Catholicism,

> but that the larger patterns or the underlying concepts are of European origin seems more doubtful. Communication with the supernatural through impersonation, the use of masks in spectacular ceremonies for rain, fertility, and healing are widely distributed in aboriginal America, and many of the most striking features of the cult flourished in pre-Columbian Mexico.[11]

Parsons herself, however, has indicated in much greater detail the elements making up this substratum of belief and ritual which presumably underlies the kachina cult. It included the following: rain or weather spirits of the directions, still vaguely distinguished from the kachinas proper; the mountain-dwelling cannibal giant; animal dances of mimetic character; war societies with clown traits; perhaps masks — at least elaborate "make-up" and headdress.[12] She suggests, specifically,

> that the kiva groups were originally war groups . . . ; that upon their initiation of the youth as warrior was based kachina initiation . . . ; that sex restrictions imposed upon kachina impersonators derived in part from sex taboo in war . . . ; that the ideology of the kachina was basically that of the Chiefs of the Directions or Cloud spirits with a flavor of Catholic hagiology; and that kachina dancing grew out of saint's-day dance, war dance for the dead, and hunt or animal dance. Impersonation of the Spirits with dramatization was a very old practice which lent itself to impersonation through the mask; the god or priest-chief mask was also an old trait, but the dance mask or general mask usage may have been encouraged or developed comparatively late.
>
> War or hunt burlesque . . . was probably the basis of clowning and burlesque in connection with kachina dances.[13]

All of this would give the kachina cult a rather broad base of old and widespread elements. Looking specifically at the Pueblos, it would be necessary to assume the existence of a proto-kachina complex no more developed than that at Taos, which is indeed very simple. Parsons has noted that the Taos cult, if such it may be called,

11 Bunzel, 1930, p. 903.
12 Parsons, 1928, p. 596; 1929, p. 280.
13 Parsons, 1939, pp. 1120-1121.

may be interpreted as the result of diffusion to the margin of the Pueblo area, or as representing

> the original cult which came to be highly developed in the western pueblos but remained unchanged at Taos. In support of this there is evidence elsewhere that the ideology of the Chiefs of the Directions or of the Cloud boys underlies that of the kachina; and the Shiwanna or Storm spirits of the southern pueblos have some distinction, however confused, from the kachina.

Parallels between Taos and Zuñi are mentioned — six kivas with each boy initiated into one; initiation "tempered by the kachina cult"; Zuñi kachina society conducts pilgrimage to lake; association of kiva groups with rain-making. Zuñi "kachina efflorescence" is stated to be due to Catholicism, and in Parsons' opinion, if the results of such outside influence on Zuñi are removed, "we are left with a striking parallelism between Zuñi and Taos in their ceremonial life."[14] I am inclined to think, however, that this is no more than a "parallelism," partly fortuitous, partly the result of similar antecedents. The parallels cited seem to me unconvincing, questionable, and not sufficiently specific. The best is similarity in the number of kivas and the affiliation of each boy with one. But at Taos girls too are affiliated, and there is a seventh kiva, apparently used somewhat differently from the others, so that even this parallel is none too precise, and it requires supplementary hypotheses to explain the smaller number of kivas in the intervening area. Moreover, if one strips Zuñi ceremonialism down to something resembling Taos, why not go farther? By sloughing off complexities and reinterpreting what remains, the possibilities are boundless. For our purposes, then, it seems better to accept as the substratum of the kachina cult those elements which have a wider general distribution than the Pueblos alone. We have then a list of traits essentially common to all Pueblos and many other peoples of the Southwest and Mexico, and including some which are found over an even wider area.

On this basis the kachina cult was built up. There are logically three possible sources for it: (1) local inventiveness among the Pueblos themselves, (2) other Indian groups, and (3) Whites. These will be briefly considered in reverse order.

Parsons at one time[15] attempted to derive almost the whole of the kachina cult from Spanish Catholic sources. Her hypothesis was that it

> was largely post-Spanish, starting with Spanish clown masks such as are worn by the Grandfathers [of Isleta, etc.] and then developing, in the western pueblos (particularly Zuñi) into the efflorescent, anti-church mask system of today. [In another place, she says] Presumably, in the beginning, the Friars contributed deliberately to the

14 Parsons, 1936, p. 115.
15 Parsons, 1930, p. 347 fn.

process of assimilation. Finding their pagans given to dancing, war dance or mimetic animal dance, would they not seek to substitute for these the religious dances of the Church?

They would have been aided by Mexican Indians who came with them and later by Mexican colonists. Of the latter, there have always been more in the east. After 1680, the Hopi had no missions, and at Zuñi the mission was withdrawn early in the nineteenth century. "My guess is," says Parsons, "that a great deal in the nature of ceremonial adaptation followed the withdrawal. . . . The kachina cult throve and blossomed." Though having the same foundation as in the east, it became thoroughly distinctive and was no longer recognized as derivative.[16]

Later, Parsons modified her stand so as to allow for a considerably greater native element in the cult, and Spanish elements were then seen as having been assimilated into a fundamentally aboriginal complex. With this view I think we may agree, though the role of Spanish Catholicism may have been less important even than Parsons finally admitted. The problem of the precise extent of such influence will be exceedingly difficult to solve, if not impossible, because of the thorough reworking of whatever material may have come to the Pueblos from this source.

Beals[17] and Brew have discussed the possibility of influences from native Mexico as the origin of the kachina cult. The parallels between the latter and the Tlaloc cult of the Aztec are strongly suggestive, and if diffusion occurred, the route probably lay through northwest Mexico, but the difficulties of this interpretation are numerous, chiefly because of the lack of detailed information on the peoples responsible for the alleged transmission. It is also difficult to be sure what, if anything, was transmitted. As Brew has said,[18]

> The Southwestern manifestations referred to above are not obviously similar to Mexican traits. . . . If the Katchina cult came from the south it was modified to fit Pueblo ceremonialism to a much greater extent than seems to have been the case with the "cult" referred to in the Southeast.
>
> There are, however, other possibilities to be considered in investigating the theory of Katchina-Tlaloc connections. Some or much of the change from Tlaloc to Katchina may have taken place in Northern or Western Mexico.

The question must be regarded as open.

The third logical possibility — that of wholly local development of the cult — impresses me as most unlikely. The elements it shares with a large area of western

16 Parsons, 1928, pp. 596-597.
17 Beals, 1932.
18 Brew, 1944, pp. 244-245.

North America and Mexico are too numerous. But that whatever was borrowed was thoroughly reworked is very clear. There is nothing really like the kachina cult outside of the Pueblos, except among peoples, like Navaho or Pima, who have influenced or been influenced by them.

A combination of the three hypotheses seems indicated. To a substratum of widely distributed elements have been added a few, probably including masks and some elements of clowning, from the south. Later, elements from Spanish Catholic belief and practice were taken over, and the cult was stimulated by this contact. But integrative forces, which seem strong in Pueblo culture, and native invention have played highly important roles in producing the modern kachina cult. It is, then, to be regarded as the unusually well developed local form of a widespread type of religious cult.

Once the kachina cult was established in its center of distribution, which has always been located among the western pueblos, the process of diffusion to other towns began. Parsons envisioned this process as follows:

> The *kachina* cult spread from Zuñi, whence in fact it is still spreading, to the Hopi, through the associations with the immigrant group probably Keresan, that had settled at Sichumovi after living some time at Zuñi; to Acoma, where there was no resident missionary; to Laguna; likewise to the Eastern Keres, to Jemez, and circling out, to the Tewa, and even to Isleta and Taos. No doubt even in the eighteenth century this process had begun, but it was in the first half of the nineteenth century, I surmise, that a great impetus was given to the distribution.
>
> It met with opposition from the Church and even from natives (as at Laguna where the Chakwena was opposed).
>
> As early as 1553 there was a law in Spain against wearing masks. In 1716 and 1745 more drastic laws were enacted [resulting in] that secretiveness of the *kachina* cult which precludes all Mexicans from looking on at *kachina* dances, and in the East all Whites.
>
> Further inquiry into the history of religious dancing and other religious folk practices in Spain, . . . and inquiry into medieval survivals of Mexico as well as into Franciscan missionary records in the Southwest, will throw light, I trust, on what took place there in the Spanish-Pueblo religious life of the eighteenth century and early in the nineteenth.[19]

This inquiry has not yet been made, and interesting though its results might be, they probably would throw little light on the diffusion of the cult, since the earlier documentary material — that of the mid-seventeenth century — seems to indicate the presence of a flourishing kachina cult everywhere in the east at that time.

19 Parsons, 1928, pp. 597-598.

Parsons' dates, therefore, are too late by a couple of hundred years at least. Also she underrated, I believe, the position of the Western Keres as co-leaders, with Zuñi, in the cult's development. Otherwise, I believe this statement of the diffusion process is probably fairly accurate.

The role of the Western Keres is most clearly indicated by the fact that the word "kachina" is itself, apparently, of Keresan origin, and by the distribution of many individual kachina impersonations. The Keres were not as important as the Zuñi, but they merit more attention as disseminators than they have so far received.

The explanation of the disparity between west and east in the development of the kachina cult by the relatively simple hypothesis of diffusion from Zuñi to the Rio Grande has been questioned. As Bunzel says,[20]

> It has been suggested that the katcina cult is of western origin and never took deep root in the east; and, conversely, in the east it has been crowded out by church worship while it continued to flourish in the west, where Catholic influence was less strong. Either or both may be true in the absence of any conclusive evidence.

Parsons, in line with her hypothesis of Spanish derivation of the cult, found a way of combining the possibilities in a very plausible explanation:[21]

> This is, I think, what happened: the beginnings of the acculturation between Pueblo and Spanish . . . took place in the eastern pueblos as well as in the western, or at least at Zuñi. In the East, assimilation did not develop beyond a certain point: with the continuous presence of the Catholic missions, and an increasing number of Mexican neighbors, Catholic ideology and Catholic rituals held their own distinctively; whereas at Zuñi the European influence was comparatively slight, so that early in the nineteenth century even the mission lapsed. Catholic theory and practice were taken over into the native life and made over much more thoroughly than in the East. From Zuñi the assimilated product spread, to the Hopi, to the East. In other words, we find in the East two layers of acculturation, so to speak . . . , the older, Eastern layer, and the layer from the West, of which the mask cult is the most notable part.

In a specific case, too, that of the Turtle dance and other maskless kachina dances, Parsons[22] has allowed alternative explanations — that they are the original forms to which Zuñi added masks, or that in the east the Zuñi dances were copied without mask. I believe the second alternative to be preferable. These are the basic kachina dances and presumably the oldest. If they spread *to* Zuñi, why would masks have been added to them unless masked dancing were already established there? On the other hand, the dropping of masks in the Church-controlled east is

20 Bunzel, 1930, p. 900.
21 Parsons, 1929, p. 283.
22 Parsons, 1928, p. 587.

easy to understand. This explanation, moreover, is practically required if Parsons' (former) hypothesis of Spanish derivation of the cult is rejected, as I think it must be.

The diffusion of the cult involved strains of various kinds in the different towns, as it impinged upon different conceptual and socio-ceremonial systems. As Beals has said,[23] "Unquestionably . . . the kachina cult did not obliterate older religious concepts, nor was it unaffected by them." This process of integration may be seen in connection with kiva groups, clans, moieties, and societies. Its result has been a considerable variation in the types of organization found associated with the cult, except in one respect. Everywhere it is associated with the kiva — but I believe that this association, though primary among Zuñi and Keres in the functional sense, is everywhere secondary in the historical sense. It has been suggested to me[24] that the application to kivas of the term *estufa* (oven) by the Spaniards was not merely a joke. For it undoubtedly referred to the nature of these buildings as sudatories, linking them with similar structures over a vast area from northern California at least to Yucatan. These were used as men's dormitories, meeting rooms, council chambers, workshops, ceremonial rooms, etc. Now the kachina cult is almost exclusively in the hands of men, *all* adult men. What could be more natural, then, than that it became (or remained —see below), everywhere, associated with kivas? It could not well be otherwise. All of the evidence — ethnological, archaeological, and linguistic — points to a considerable age for the kiva. On the age of the kachina cult, though it seems clearly pre-Conquest, there is no such conclusive evidence. But its association with kivas is secondary, and though we do not know when or where such association was first made, the Zuñi-Acoma situation suggests that area as a very likely possibility (see below). If kivas are found in an archaeological site, then we may say that *if* a kachina cult existed at that place, it was probably associated in some way with the kivas, but without further evidence we cannot postulate the existence of the cult.

The relation of the kachina cult to the medicine societies, particularly among the Keres where these societies are most prominent, should receive some attention. White's original position on the matter may be summarized as follows: though the medicine men seem very necessary to the rain-kachina cult, these functions are secondary to their curing practices and later in development. The small number of kachinas directly associated with the societies indicates an earlier condition when none were so associated. As the kachina cult has grown, masks have naturally been adopted for use in many new ways, and in this growth the societies have become

23 Beals, 1944, p. 250.
24 Orally by Leslie Spier.

involved, since "almost all important functions in the pueblo are shared by all the important officers and societies." The societies did not originate the kachina cult, however, and their custody of masks is recent. Kachina dances were attached to the esoteric retreats, and these associations have led to the use of masks at curing and initiation rites. All of these traits, which show little uniformity among the societies, are secondary to their curing activities, which are much alike.[25] I believe this to be a very fair statement of the case. White's later views, however, may be somewhat extreme, perhaps as influenced by the peculiar situation at Santa Ana, where the societies appear to have complete control of the kachina cult and it has no associations with the kivas.[26]

Curiously enough, Parsons has used the Keresan data to arrive at a very different conclusion. Pointing to mask use at society initiations, and possible general control of masks by Keresan medicine men, she concludes,[27] "I have little doubt that the efflorescent mask cult . . . developed out of the more restricted society use of masks." I believe, however, that White's interpretation is fundamentally more sound, partly because it is apparently almost entirely societies of the Keresan type (however far afield) which employ masks. Such societies are rare and relatively unimportant precisely among those western groups — Zuñi and Hopi — where the general mask cult flourishes most notably, and Parsons' hypothesis thus seems to put upon them a burden in diffusion out of proportion to their strength.

The integration of the kachina cult with kiva organization and with medicine societies are merely aspects of the problem of its integration with the total socio-ceremonial system. A few remarks regarding this broader perspective may be in order. Kroeber's suggestion of a dichotomy in Zuñi ceremonialism, communal vs. fraternal, is basically sound, I believe, though admittedly it disregards some of the details. The most significant fact about it is that it holds elsewhere as well — very clearly, for example, among the Hopi, though here it is differently expressed. Kroeber says,[28]

> That this cleavage is a conceptual and largely a conscious one, does not of course make it original in Pueblo religion. It may have been so; or again, it may have developed only gradually out of a former more economical state of undifferentiation. There is no doubt that the dualism which pervades the modern Pueblo system of ceremony, is one of partial repetition, and that it is connected with the evident tendency toward exacting elaboration.

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25 White, 1930, pp. 617-619.
26 White, 1942, pp. 207 ff.
27 Parsons, 1923, p. 164 fn.
28 Kroeber, 1916, p. 270.

This is carried out more fully at Zuñi, partly because of concentration in one town, "a circumstance almost predestined to emphasize the solidary communal aspects of life." Elaboration of the kachina cult here may thus be partly explained, but it might be pointed out more specifically that this complexity, as compared with Acoma, for example, where the fundamentals are much the same, may be due to the inclusion at Zuñi of cult observances derived from at least six ancestral towns. This, obviously, would tend to crowd the calendar at Zuñi, while Acoma, with no such history of fusion, retained a series of rites conceivably comparable in number and type with those which might have been found at a single Zuñi town in the sixteenth century.

One further type of integration should be mentioned, namely, that of the assimilation of foreign, particularly Spanish Catholic, elements into the cult. Parsons, after abandoning her earlier views, described this process as follows:[29]

> The evidence remains baffling, but I am tentatively concluding that the clown and kachina mask, the Kachina cult, is of independent Indian origin combining with Catholic contribution. Also I believe that the history of all the other ritual elements mentioned as jointly Catholic and Pueblo has been that of the mask, the end product is a convergence rather than an out-and-out borrowing well acculturated. Aboriginal usage or rite has been fed or stimulated by the Catholic rite.

From the present viewpoint, this is an essentially unexceptionable statement.

Due to the scantiness of older documentary material, there is little direct evidence of the extent or types of change in the kachina cult, except for the last seventy-five years or so. Even for this period, we have relatively little. The changes have been for the most part additive, resulting in the observed efflorescence of the cult, even while its strictly religious significance has been diminishing. Parsons has well summarized these recent changes, and there seems to be no reason to suppose that those in the more remote past, though probably fewer in the simpler cult, were of an essentially different nature. The same factors appear to have been operating for a long time. Parsons says,[30] "Innovations are constantly occurring in the kachina cult, which is very hospitable to novelties; new impersonations, new dances, new songs, new details of costume or array." "Involution by budding," she remarks further, "is lively." Changes in details of an impersonation create a new kachina, as Upikaiupona from Kokokshi at Zuñi, or a new one may be asked for, as one may be asked for from Pautiwa, the Zuñi kachina chief. "Buffalo was novel but as a kachina he was comfortably familiar, like a newly canonized saint from another nation." This is a characteristic type of change, within the pattern.

29 Parsons, 1939, p. 1073.
30 *Idem*, p. 1122.

In connection with changes in the get-up of kachina it has been pointed out that they occur more readily among recently introduced or borrowed kachina. . . . The same principle applies, I surmise, to the Kachina cult as a whole in comparison with the society rain or curing cults, the older and more conservative cults. Besides, the society cults deal with smaller groups. The efflorescence of the Kachina cult may be due in part to the inclusiveness of kachina dance groups.

. . . When newly introduced kachina become prominent, old kachina may lapse in popularity or even disappear. The kachina come and go in popularity. . . . Again kachina may lapse in one town but not in another, [as Natashka among Hopi]. On the whole, however, the kachina dance cult has been everywhere in the ascendant, since the turn of the century, if not before.[31]

It is precisely the earlier period which constitutes the problem. Parsons has made some suggestions with regard to earlier forms or emphases of the kachina cult — that it was once not all for rain, for example, Zuñi Shalako being also a hunt and war ceremony, kachina initiations having been perhaps originally warriors' initiations, and the kiva-kachina groups originally war groups or war-dance societies, as are even today the Hopi Wöwöchim societies.[32] But it is difficult to prove these points. Boys' initiation rites and men's societies may well be in the background, but that the kachina cult was ever specifically a war cult, or that kiva groups were originally war groups, is very doubtful.

Documentary evidence would help greatly, but so little has been found that it is more significant in showing resemblances to the modern cult than in showing differences — i.e., even in an imperfect description familiar items may be recognized, but the unfamiliar may be such merely because of the imperfect record. From the documentary material, the following rather impressive list of elements of the modern kachina cult seem traceable back to the mid-seventeenth century: masks "like hoods" used in dances, whipping by dancers, use of kivas by dancers, kachina races for food prizes, kachina calls, fasting before dances, masked figures as impersonators of the dead, offerings of prayer-feathers and meal, participation by men only, female impersonations, storage of masks in kiva, horned masks (?), dance kilts (?), dancing performed for all sorts of blessings (food, water, health, etc.), announcement of arrival of dancers, use of spruce (?), masked figures to bring together working parties, figures of water serpent (?), but, according to some accounts, no "idols."[33] What happened, however, during the eighteenth and early nineteenth centuries? We do not know, for the details recorded by Dominguez in 1777 are those common to almost all Pueblo dancing, and do not refer

31 *Idem*, pp. 1124-1125, 1161-1162.
32 *Idem*, p. 1149.
33 Anderson, 1956, *passim*.

specifically to the kachina cult. On the basis of this material, the most that could be said is that if kachina dances were performed, they probably resembled those of today.

Except for the very recent period, then, we must rely upon indirect evidence to show the nature of change in the kachina cult. This indirect evidence is provided in the modern descriptive material, which shows very clearly that there is endless variation in the elements comprising the cult and in their combination in the several towns. Since the complex itself forms a definite historical unit, the variations existing today must be the result of differential change, and they constitute our safest criteria for such change. The nature of these variations has already received some attention. Particularly significant, I think, are (1) those in the complexity of the cult, which show very clearly the elaboration it has received — at Zuñi, for example — largely through the repetition of patterns of organization and activity in the several dance groups, and of patterns of costuming and behavior in different specific kachinas; (2) the variations in the mode of integration of the cult with other aspects of the differing socio-ceremonial systems, showing that adaptive changes have occurred widely, in the cult itself, and, to a lesser extent, in the preëxisting systems; and (3) the variations in the specific kachinas impersonated, showing more clearly than anything else the operation of the processes of borrowing and of invention, since many of the individual figures are widespread, while many others are more narrowly confined, even to single towns.

It is gratifying to note that the present reconstruction agrees fundamentally with that suggested, on different grounds, by Hawley.[34] The principal source of disagreement, I believe, is that she would apply the term "kachina cult" to what I have here referred to as the "substratum" of that cult. She sees it, therefore, as very early, coming in, probably from Mexico, at the same time as agriculture, and being first established in the Mogollon area of southeastern Arizona and southwestern New Mexico in conjunction with big kivas. Later it, and these kivas, spread northward and eastward, carried by ancestral Keresans and Zuñi. Little kivas, in Hawley's view, are northern, associated with Tanoans and Hopi, and having originally uses different from those of the big kivas. The two strains have now blended, somewhat differently in different areas. My view of the kachina cult as something more specific, and later, implies that its spread postdates the developments leading to the distribution of modern kiva types, so that their history, interesting though it is, has essentially no bearing on that of the kachina cult. That the modern big kivas (of the Eastern Keres) pertain exclusively to cults involving costuming and dramatization and whose purpose is to produce crops,

34 Hawley, 1950, *passim*.

rain, and fertility — kachina, Koshare, Corn dance, etc. — I will not deny, but I hold that the kachina cult is merely a relatively late specific manifestation of this more generalized set of beliefs and practices. If Hawley's view is accepted, however, her reconstruction seems sound. It is supported by various pieces of archaeological evidence from the general Mogollon area, including anthropomorphic pictographs and pottery designs, and the presence here in cave deposits of numerous prayer-sticks. The latter seem to be specifically a part of the kachina cult in Hawley's generalized sense. If it is remembered, then, that her reconstruction refers for the most part to events of a period earlier than that covered by the reconstruction presented here, it will be seen that they are on the whole in agreement or are complementary. (Recalling Parsons' suggestion that Hopi clan masks may be very old, and the clan associations of Hopi kivas, it might be suggested that the "line dancers" may be the specifically southern, Mogollon, contribution, while the "side dancers" or kachina chiefs, may be of northern derivation, at least in part, so that the modern cult is a fusion of two earlier cults — but this must be for the present mere speculation.)

In summary, it may be said that conservatism in pattern, frequently coupled with hospitality to innovations in detail, has been the theme of the history of the kachina cult. Conservatism in pattern is shown in three ways. In the first place, there has apparently been retained everywhere among the Pueblos a characteristic set of concepts concerning the kachinas or similar beings — concepts which, because of their wide distribution through the Southwest and Mexico, we may safely assume to have a respectable age, an age certainly greater than any developed kachina cult. In the second place, wherever this cult has spread, it has been modified, particularly in its organizational aspects, to fit the prevailing socio-ceremonial pattern. It has been caught up, so to speak, into the existing systems, so that its position today relative to various types of social groups is as varied as are the positions of those groups relative to each other. Third, once each tribal cult had attained the formation of a pattern of its own, new elements were forced to conform to that pattern, as in the case of the addition of masks to dances recently borrowed by Zuñi from the Plains, or the picking up of clan associations by Sio (Zuñi) Shalako on First Mesa, or moiety associations by borrowed Tewa kachinas.

That these many adaptations are made, however, emphasizes the hospitality of the cult to innovation in detail, whether borrowed or invented. It would appear that almost anything can somehow be fitted in. It seems astonishing, given this power of adaptation and the common ideology, that variability in the kachina cult from town to town is as great as it is. Two inferences may be drawn from this, I think: first, that the cult is not *very* old, though definitely pre-Conquest, and

second, that it has been everywhere an active, vital cult in which change has recently been so rapid that the diffusion of new elements cannot proceed fast enough to level the differences. The changes, however, remain within the framework of the general ideology and the specific socio-ceremonial patterns of the several towns.

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